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Chane SF8
Choroti SK7 ●
Mataco SI7
Chaco Indians SK4
Toba SI12
Tapiete SK13
Siriono SF21

/For the map showing the location and distribution of these tribal groupings, see 4: Nino, SF10 Chiriguano, category 116, pp. 447-452./

113 Choroti SK6

[For general cultural information on the Choroti Indians see also 2: Karsten, SI7 Mataco, category 116.]

PREFACE.

In my books, »En förgången värld» and »Bland indianer»[1] I have given 1/4
an account of the origin and composition of the Chaco-Cordillera Expedition, described the vicissitudes and adventures that befell it among the mountains of the Andes and in the Gran Chaco, and published the result of the researches I carried out during my sojourn in the Andean mountain region and the Gran Chaco. The present work is an English translation of such chapters of »En förgången värld» and »Bland indianer» as deal with my ethnographical studies. I give here below a complete list of the publications representing the result of the scientific work of the expedition. 1/4 113

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[1] von Rosen, E. (1), (10).

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A Swedish-Argentinian, señor Eric Boman, who, during his stay in South America, had also occupied himself with scientific exploration and resear-

[pp. 187-268 not processed]

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(1) *VON ROSEN, E.* EN FORGANGEN VARLD. FORSKNINGAR OCH AVENTYR BLAND ANDERNAS HOGFJALL. STOCKHOLM 1919.

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(1) *SEFVE, I.* UBER EINEN SCELIDOTHERIUM-SCHADEL AUS TARIJA, BOLIVIA. KUNGL. SVENSKA VETENSKAPSAKADEMIENS HANDLINGAR; VOL. 53. STOCKHOLM 1915. // 30

(2) — DIE FOSSILEN PFERDE SUDAMERIKAS. KUNGL. SVENSKA VETENSKAPSAKADEMIENS HANDLINGAR; VOL. 48. UPPSALA AND STOCKHOLM 1912.

(1) *SELER, G. E.* ARKEOLOGIENS PROBLEM. VETENSKAPEN OM MANNISKAN; PART 1, NO. 2. POPULARA ETNOLOGISKA SKRIFTER UTGIVNA UNDER REDAKTION AV PROFESSOR C. V. HARTMAN; 3. STOCKHOLM 1911.

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[p. 276 is blank]

113, 143

Chiriguano	SF10
Choroti	SK6
Mataco	SI7
Tehuelche	SH5
Caraja	SP9
Tucano	SQ19
Guarani	SM4
Timbira	SO8
Araucanians	SG4
Paez	SC15
Canari	SD4
Jivaro	SD9
Aymara	SF5
Ona	SH4
Yahgan	SH6

/For information on genic locations based on Streng's diagram of co-ordinates of the blood groups of the natives of South America, see: 4: Hill et al., SS18 Warao, Category 116, pp. 107-114./

PREFACE.

In my books, ›En förgången värld› and ›Bland indianer›[1] I have given 114 an account of the origin and composition of the Chaco-Cordillera Expedition, described the vicissitudes and adventures that befell it among the mountains of the Andes and in the Gran Chaco, and published the result of the researches I carried out during my sojourn in the Andean mountain region and the Gran Chaco. The present work is an English translation of such chapters of ›En förgången värld› and ›Bland indianer› as deal with my ethnographical studies. I give here below a complete list of the publications representing the result of the scientific work of the expedition. 114 113

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[1] von Rosen, E. (1), (10).

[p. xi]

114 *NORDENSKIÖLD, E.* RESA I GRÄNSTRAKTERNA MELLAN BOLIVIA OCH ARGENTINA. YMER; 1902. STOCKHOLM.
113
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114 The Chaco-Cordillera-Expedition set out from Sweden, in 1901, in two different parties. The first of these, which consisted of Baron Erland Nordenskiöld (the leader of the expedition, at that time a zoologist), Dr. Robert Fries, botanist, and Oscar Landberg, a taxidermist's assistant, left the home country on March 25th, arriving on May 12th at the town of Salta, in N. W. Argentina, the place that had been selected as the starting point and base of our exploration of the surrounding districts.

A Swedish-Argentinian, señor Eric Boman, who, during his stay in South America, had also occupied himself with scientific exploration and resear-

ches, was attached to the expedition, partly as an interpreter, partly to assist in the collecting work. When, at the end of February, 1902, our expedition broke up from Tarija, in Bolivia, Boman returned to Argentina.

The second party, which consisted of Herr Gustaf von Hofsten, the author and a servant, left Sweden on August 12th and reached Salta on September 25th. Herr von Hofsten was to collect birds for the Riksmuseum, and it was to be my business to carry out archæological and ethnographical research work.

On our arrival at Salta we were met by the other members of the expedition, who a few days previously had returned with abundant collections from an exploring journey into the districts around Sierra Santa Barbara, which had proved exceedingly successful from a scientific point of view. After having completed our equipment and a sufficient number of peons had been engaged, the expedition set out for Puna de Jujuy, a desert-like plateau at an altitude of about 3,500 metres above sea level, which we reached on October 14th. Here we made our main camp at Moreno, from which place many and long exploring journeys were made; among other places to Casabindo and Morohuasi. Ruined cities, graves, and other relics of antiquity were explored and examined, and the flora and fauna studied.

During our stay in the Puna region, which lasted over two months, there were made large, scientific collections, which were despatched to Salta before we resumed our journey over the mountains to the Tarija Valley, where we arrived on January 8th, 1902. The expedition here set to work on palæontological, zoological, botanical, archæological and ethnographical research, and large collections were obtained.

We remained in the Tarija Valley until February 24th, when we broke camp and set out for the low country, particularly the immense dry-soil forest region of the Gran Chaco, where we arrived on March 13th.

Our main camp was pitched in a glade in the primeval forest, not far from Caiza in the Bolivian part of the Chaco. An excursion was made to the Pilcomayo, when the author had to swim across the river in order to get into contact with some Toba Indians who at that time had their villages on the eastern bank of the river, approximately opposite Fort Crevaux.

Whilst our expedition remained in the Gran Chaco, the Choroti, Chiriguano and Mataco were also studied, and ethnographical collections acquired from these tribes. At the same time, extensive and valuable zoological and botanical collections were obtained. On April 22nd we broke up from Fort Crevaux. After a toilsome horseback journey through the brambly, and in parts very poorly watered, forests along the foot of the Andes, we arrived on May 11th at Pampa Blanca (the rail-head near Jujuy), whence we continued by rail to Buenos Ayres. On June 27th, 1902, we were back in Sweden again.

EXPLANATIONS.

Objects marked »Riksm.» belong to the Ethnological Collections of the Swedish Riksmuseum. The numerals (e. g.: 03. 3. 1.) give the catalogue number of the objects. The figures within parentheses, together with the name of an author, refer to the list of literary sources given at the end of the book.

ERRATA.

Page 41, line 1 under fig. 23.	For ar	read or.
» 53, » 3 from above.	» Caraguatá	» caraguatá.
» 56, last line.	» Chorotis	» Choroti.
» 63, line 12 from foot.	» »	» »
» 75, » 10 » »	» Cactus	» cactus.
» 97, » 16 from above.	» te	» to.
» 126, » 17 » »	» Chorotis	» Choroti.
» 166, » 7 » »	» surreptiously	» surreptitiously.

CHAPTER I.

The Chorotl. (I). The country and the people. Dwellings.

Situation and extent of El Gran Chaco. Some attempts at interpreting the name of Chaco. Journeys of exploration in the Chaco. Geographical discoveries. Ethnographical research among the Chorotis. The name of the tribe. Area of distribution. Physico-anthropological observations. Villages. Huts and their furnishings. Cooking sheds and drying-racks. Burning of villages.

El Gran Chaco (the great hunting ground) is the name given to the vast, partly forested, level country lying between the Andes and Rio Paraguay, the northern boundary of which roughly coincides with the parallel of 19 degrees of south latitude, whilst to the south it extends to about the 29th. 131

The meaning of the name of Chaco is not known with absolute certainty. Of the attempts at its translation so far made, in my opinion the most likely one is, that »chaco» (in quichua »chacu») means an assembly, or the place for an assembly, especially for the purpose of game-hunting on a big scale.[1] Against this supposition the Finnish scientist, Karsten, puts forward the objection that the Gran Chaco is nowise abounding in game, and that consequently the application of the name of »hunting ground» to this region would be hardly suitable; in addition, Karsten points out that there are no certain proofs in existence that the civilization of the Incas ever extended to the Chaco.[2] To this I would reply that although, as is known, *the interior* of the Chaco is deficient in game, its outskirts towards the Andes as late as 1902 to such an extent teemed with game, birds especially, that it is only in certain parts of Africa I have seen anything to compare with it. Therefore I think it very probable 136 114

[1] Lindman (1), p. 46.

[2] Karsten (2), pp. 23 and 24.

[136] 114 that hunting expeditions were sent out from the ancient Inca kingdom to the Chaco, among other things for the purpose of obtaining rare and valuable material for feather ornaments. If, in the time of the Incas, the reaches of the Chaco bordering on the Andes were as well supplied with game as was the case when we visited those parts — a very probable thing — the mountain-dwellers had no need to make any hazardous trips into the far interior of the Chaco. These hunters probably only knew the border reaches, and the name then found appropriate to this region has subsequently come to include the whole of the flat country around the Pilcomayo and the Bermejo. That intercourse was carried on between the mountain peoples living within the ancient Peruvian dominions, and the Chaco inhabitants during the Inca period, may with very great probability be gathered from, inter alia, Baron Erland Nordenskiöld's excellent analysis of the civilizations of two Chaco tribes.[1]

The name, Chaco, has also been translated as »the flight», i. e., the place of refuge,[2] but I do not think it very probable that the conquering peoples would have adopted a name that was only applicable from the point of view of a small number of expelled tribes.[3]

At the time of our expedition, the greater part of the Chaco was on the map shown as an unknown territory. Up till then, no white man had followed the course of the Pilcomayo from the Andes to the Paraguay. Since then, great changes have taken place on the Chaco, and our knowledge of this region has been considerably increased. The course of the Pilcomayo has been mapped, and the Bolivian government has established military outposts practically in the middle of the Chaco.

But to this day large tracts of the Chaco are entirely unknown. This may seem strange, considering that the Chaco to the west and to the east borders on regions that for centuries have been visited by Europeans, and now to a great extent brought under the sway of civilization.

That the Chaco still includes immense tracts that are only inhabited by Indians, may, no doubt, be ascribed to the circumstance that the greater part of it is little suitable for colonization. Only on the border, and along certain reaches of the Pilcomayo and the Bermejo, has it been found possible to carry on agriculture to advantage, and, with the exception of the districts mentioned, the forests are not of such a nature as to lend 114 themselves, in the near future, to profitable exploitation. Neither is there any ground for supposing that in the interior of the Chaco, where the soil in the greater part consists of loess-like strata, there is any prospect of finding any valuable minerals, or any other important products of nature. The great possibilities for cattle-ranching that exist in certain parts of this region, will, however, probably facilitate its colonization. If, contrary to expectation, gold-bearing ground, for instance, were discovered on the Chaco, even those parts of the »great hunting-ground» that are most difficult of access would, no doubt, before long be explored.

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[1] Nordenskiöld (11).

[2] Karsten (2), p. 24.

[3] Cf. pp. 29 and 75.

And it was precisely the thirst for gold and silver that first led white 175 men into the Chaco. The Portuguese, Alejo Garcia, and some countrymen companions were the first whites who visited this region. About 1520 these adventurers, at the head of an army numbering some 2,000 Guarani Indians, marched right across the Chaco, from Rio Paraguay to the Andes, and invaded Peru. From the Indians of Rio Paraguay, Garcia had heard rumours of that country, and of its wealth in gold and silver, and it was covetousness of these precious metals that was the motive force in the hazardous and arduous march through the Chaco. Baron Nordenskiöld has established that this expedition was probably made some year, or years, before Pizarro's arrival in Peru, and that thus Garcia and his companions probably were the first Europeans who obtained personal knowledge of the ancient Inca kingdom.[1]

Although the Gran Chaco, as we have seen, was visited by white men 175 at the beginning of the 16th century, it was only in the latter years of 648 last century that any detailed and reliable information became obtainable of the more inaccessible parts of this region. The French explorer, J. Crevaux,[2] who intended to make extensive research of the country and population around the Pilcomayo, was given no opportunity of carrying out his plan, for, already at the outset of his expedition, in 1882, he was murdered by Chaco Indians, probably members of the Choroti, as 114 well as the Toba, tribe. Another French explorer, Thouar, has described a journey across the Chaco.[3] The Norwegian, Lieutenant Storm, has published important observations from two expeditions of his on the

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[1] Nordenskiöld (16), p. 46 et seq.

[2] Crevaux (1), pp. XIII–XVI.

[3] Thouar (1).

114 Pilcomayo,[1] whilst our countryman, Professor Lindman, has supplied very valuable contribution to our knowledge of the eastern parts of the Chaco.[2] Among the more important works on the Chaco that had been published prior to our expedition, those by Lozano[3], Peña[4] and Fontana[5] should also be mentioned, as they contain geographical, meteorological, ethnological, zoological and botanical data of great interest.

At the time of our expedition, the regions including the course of the Pilcomayo through the more central parts of the Chaco were, from a scientific point of view, still to a large extent completely unknown. It was in the attempt to explore these regions that Crevaux perished, and in the interior of the Chaco the two explorers, Ibareta and Boggiani, had also been killed by Indians. The murder of Ibareta took place the year before our expedition, and Boggiani fell a victim to the Indians in the same year that we visited the Chaco. Lista, too, met his death in this region shortly before our journey; according to his companions' statement, he took his own life.

After our expedition, and apart from Baron Nordenskiöld, many other explorers, among them the Finlander, Professor Rafael Karsten, have travelled in the Chaco and carried on extensive research work.

133 As I have already mentioned, the Gran Chaco is a partly wooded plain. In the eastern or central parts of the region the ground is not known to present any marked elevations, and it is only in the portion nearest to the Andes that any appreciable hills or rises are found.

Three large rivers, the Pilcomayo (fig. 1), the Bermejo and the Salado (Juramento) flow through the Chaco from north-east to south-west. Besides these, all the year round water-bearing rivers, there are, during the latter part of the dry season, only a very few water courses, the majority of which periodically dry up for part of the year; consequently, the country is exceedingly waterless.

132
133 During the rainy season, which practically coincides with the summer and, therefore, lasts from and including November until the end of April, the volume of water in the rivers increases rapidly, and here and there the rivers rise above their banks and flood large areas. Beds of water-

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[1] Storm.
[2] Lindman (1) and (2).
[3] Lozano (1).
[4] Peña (1).
[5] Fontana (1).

136 very abundant in fish, and in their waters, as in most of the larger lagoons, alligators (Caiman sclerops) are present (fig. 15).

101 El Gran Chaco was in beginning of this century the country of the free Indians. Of the many tribes that inhabit this vast region, I have come into contact with Choroti, Chiriguano, Toba, Mataco and Tapiete, but it was only from among the first-mentioned that I had an opportunity to obtain any extensive collection.

[137]

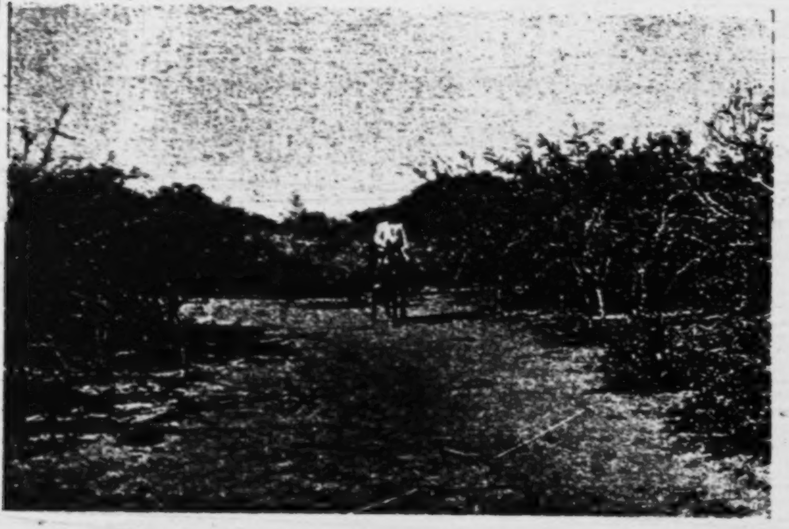

Fig. 3. Dry soil forest region. Gran Chaco. Bolivia. Photo. Rob. Fries.

101
● 114 In the literature dealing with the Chaco, there was, prior to our expedition, not to be found much information concerning the Choroti. Their tribal name, in the form of ›xolota›, was, however, known already in the 18th century, when it was, probably for the first time, mentioned by Pedro Lozano, who, in a work published in 1733, enumerates a long string of names of tribes inhabiting the Chaco.[1] In his work, ›Explorations dans l'Amerique du Sud›, Thouar only gives a few, stray, items of information about the Choroti, he having come across that tribe on the Pilcomayo. The Choroti were, therefore, at the time of our expedition a

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[1] Losano (1).

101 114 tribe practically unknown from an ethnographical point of view, a circumstance which accounts for the interest paid to the incomplete description of the material culture of the Choroti tribe that I put before the 14th International Congress held at Stuttgart in 1904.[1] My lecture, which was also available in print, was in extenso incorporated with the report of the proceedings of the Congress,[2] and later appeared, slightly abridged, in »Anthropologie Bolivienne».[3] For reasons I have stated in the foreword of my book, En förgången värld,[4] my first description of the Choroti must nevertheless be looked upon as a work done in some haste.

114 Since the Swedish expedition of 1901–1902, various explorers have made valuable studies of the Choroti, and considerable increased our knowledge as to the physical properties, mode of life, and customs, of this tribe. The eminent anthropologist, Robert Lehmann-Nitsche, has carried out extensive anthropological measurements of a large number of *individuals of this tribe,*[5] *and has also studied the language of these* Indians.[6] Erland Nordenskiöld has made most exhaustive and exact study of the daily life of the tribe;[7] Rafael Karsten has specialized in studying dances and magic rites among the Choroti and other Chaco tribes,[8] and Hunt has made a study of their language.[9] Valuable research work with regard to Indian tribes, who from a cultural point of view are allied to the Choroti, has been done, among others, by Ducci,[10] Fric,[11] Grubb,[12] Hawtrey,[13] Herrmann,[14] Karsten,[15] Koch-Grünberg,[16] and Nordenskiöld.[17] Whilst travelling in the Chaco 1908–1909, Nordenskiöld spent a long time with the Choroti and shared their way of living, as if he had been

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[1] von Rosen (3).

[2] Internationaler Amerikanisten Kongress (1), p. 649 et seq.

[3] Chervin (1), Part 1, p. 140 et seq.

[4] von Rosen (1), pp. 1–3.

[5] Lehmann Nitsche (1).

[6] Lehmann Nitsche (2).

[7] Nordenskiöld (11), (13), (17), (18), (19), (20), (21) and (22).

[8] Karsten (1), (2), (3), (4) and (5).

[9] Hunt (1).

[10] Ducci.

[11] Fric.

[12] Grubb.

[13] Hawtrey (1).

[14] Herrmann (1).

[15] Karsten (1), (2), (3), (4) and (5).

[16] Koch (1) and (2).

[17] Nordenskiöld (11), (13), (17), (18), (19), (20), (21) and (22).

[text continues on p. 23]

●114 a member of the tribe. He submitted to almost any sort of unpleasantness and discomfort in order to gain exact knowledge, not only of the daily occupations of the Indians, but also of their feasts and drinking-bouts. Nordenskiöld drank algarobo beer out of the same bowl as slavering old men, with whom he also had to take turns at smoking the same pipe. His face was spat upon, and scratched, and he was obliged to endure the bedfellowship, in his own blankets, of Indians infested with lice. When he wished to be tattooed, he had to put up with a horrible hag spitting on his bleeding tattoo wounds, and her rubbing in the saliva with her fist. But there were occasions when it was a matter of life and death. Once, when Nordenskiöld and his companion, Moberg, and an interpreter, stayed the night in an Ashluslay camp, the interpreter overheard the Indians discussing a plan to take their lives, and from their talk he also gathered that Moberg's fair-haired scalp was a dangerous temptation to the redskins!

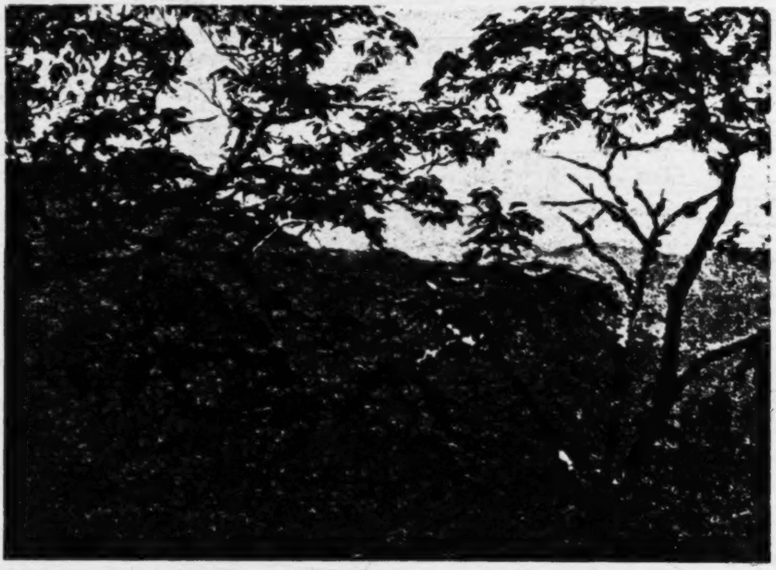

Fig. 11. View in Gran Chaco from Cuesta de Aguayrenda's eastern slopes. Bolivia. Photo. E. v. R.

114 By his living like an Indian among Indians, Nordenskiöld has in an unparalleled way succeeded in enriching ethnographical science, and his research achievement is one of the most noteworthy in the history of modern South American exploration.

101 The Choroti Indians are also called Chorote, Choloti, Tsoloti, Soloti and Solote. The final »s» added to these tribal names comes from the Spanish plural form, and has therefore in later works rightly been left out. The name they call themselves by is »yófuaha», or »yóshuaha», which probably means »pigeon people». If so, the pigeon would be the totem animal of the Choroti.

[197] After the publishing of the valuable research, made by Hunt, of the Choroti language, it has become necessary to class this tribe with the Mataco group, although the material culture of the Choroti in many respects shows an equally close kinship with the civilization of certain Guaycurú and Mascoi tribes, such as the Toba and the Lengua. [174] That the Choroti have had their abode in the Chaco ever since the Inca period is highly probable, because, as already mentioned, their material culture in a very obvious degree points to a strong influence from the ancient mountain civilization to the west.

101 131 The section of the Choroti tribe among whom I pursued my study, was at the time of our expedition located in the neighbourhood of Caiza (see map). Some of the Choroti I met in this district had, however, their chief place of resort on the Pilcomayo, and thither they intended to return after a visit to the sugar plantations in northern Argentina. [166] As I have been informed, my red friends from the Caiza region at some later time did something or other to the annoyance of the settlers of the district, whereupon they moved further into the Chaco, and have since that time probably never again come into contact with whites. According to Nordenskiöld, other Choroti have, however, immigrated into the country about Caiza. The main part of the Choroti tribe inhabits the region immediately to the east of the Pilcomayo, and roughly between 21° 45′ and 22° 45′ of south latitude.

Our main camp, Tatarenda, was situate a few leagues south-west of Caiza, and the Choroti of whom I made a study were located one league south-west of the camp.

000 Of the Choroti among whom I carried out my investigations, the men

[text continues on p. 31]

101 translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

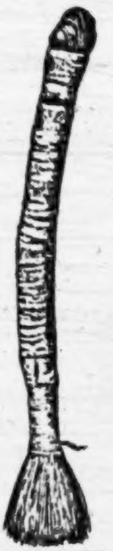

Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti, Gran Chaco, Bolivia. $^{8}/_{1}$ a. Riksm. 03. 3. 65.

171 In our days, the practice of wearing ear-lobe discs is met with among
304 a number of tribes distributed over the whole of that part
301 of South America which lies to the north of the tropic of
Capricorn.[1] On the Chaco, ear-lobe discs are extensively
worn by the Choroti, Lengua[2] and Ashluslay, and are also
found among some of the Mataco and Toba Indians.[3] Also
in North America the custom of wearing ear-lobe discs, or
blocks, appears to be very ancient.[4] The wearing of this
[302] kind of ear discs is, however, not limited to America, but
is also found, among other places, in Central Africa.[5]

301 Among the Choroti, all the men and youths have their
304 ear-lobes pierced, and in the holes they wear discs (see for
instance figs. 17, 30, 39, 53). These discs were almost
always used for everyday wear, and invariably on state
occasions. It very seldom happened that I saw a Choroti
man without his ear-discs. Latterly, the practice of wearing
[178] ear-lobe discs has, in the same way as other old customs
once prevalent among the Choroti, become less common,
and nowadays it seems that the Choroti, for everyday use
at least, often appear without their discs. The piercing of
the ear-lobes is performed with a bone awl, or cactus
spine, already during boyhood, but I did not see any boys
[882] under puberty age wearing discs. Neither is there anything
in the literature indicating that Choroti boys put on ear
discs before that age.[6]

But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

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[1] Nordenskiöld (11), map 18.

[2] Koch (1), p. 218, and Hawtrey (1), p. 283.

[3] Nordenskiöld (11), p. 122.

[4] See for instance Moore (2), p. 282.

[114] [5] von Rosen (4), plate 7, fig. A, and von Rosen (7), p. 124.

[6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (13), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

304 pattern with the cactus needles, or bone awl, until beads of blood appear, when the soot-mingled saliva is rubbed into the punctures. After healing, the tattoo marks assume a bluish colour.

302 At dances, lovers' meetings, and other important occasions, men and women paint their faces (figs. 62, 67—70 and 74—76). Face-painting may be done either in red (figs. 67—68 and 74—76) or in black (fig. 69), or in both red and black (fig. 70). Painting the face in red is commonest. [386 439] The black paint consists of soot and saliva, whilst the red colour (fig. 78) is prepared from seeds of Bixa Orellana (fig. 79). These seeds are usually obtained by barter from the Chiriguano, and are carefully kept by the Choroti in small calabashes. I have also seen miniature wooden bowls (fig. 80) used as receptacles for these colouring seeds after they have been taken out of the follicle.[1] The soot is usually kept in a

[415 439]

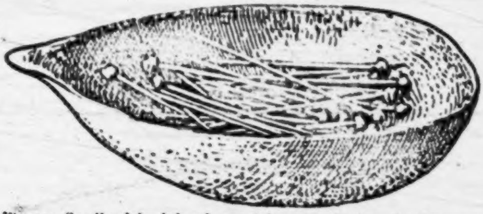

Fig. 77. Small calabash bowl containing cactus spines for tattooing. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 87.

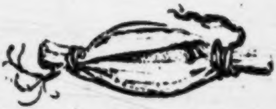

Fig. 78. Red paint, ready prepared for face-painting. This lump of paint, which is wrapped in a sheath of palm leaf, may possibly have reached the Choroti by barter from the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 104.

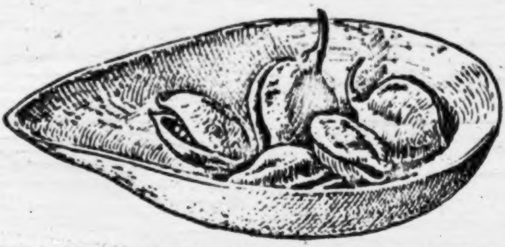

Fig. 79. Small calabash bowl containing fruits of Bixa orellana. From the seeds of these fruits colour is prepared for face-painting. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 103.

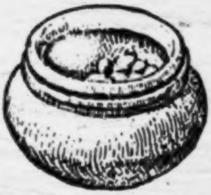

Fig. 80. Miniature bowl of wood, holding colour seeds. The bowl and the seeds have possibly been obtained by the Choroti through barter with the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 180.

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[114] [1] Owing to a mistake having occurred as to the identity of seeds, in my first treatise on the Choroti I have erroneously stated that the red paint used in face-painting is made from the seeds of Caesalpina melanocarpa.

skinning or gutting, and are usually eaten with entrails, excrement and all. When the Choroti eat the entrails of larger animals, they do not first rinse them out, but are, at best, content with squeezing out the contents. Nordenskiöld has seen them eating intestinal contents as spinach together with the meat.[1] Fish is grilled, either by being laid on glowing embers, or tied between two sticks stuck into the ground by the fireplace. 252

As servers for food are used bowls of clay, wood, or calabash shell, or merely large, fresh leaves. 415

In foregoing chapters I have given the names of such plants, wild as well as cultivated, as are of importance in the food supply of the Choroti. Vegetables are eaten raw, boiled, roasted or dried. The Choroti, like other Chaco tribes, eat the fruits of the algaroba, and other similar fruits, in the following, rather original way. The raw fruits are put into a large wooden mortar (fig. 122), and there pounded up. The pulp is put into a calabash bowl, where it is stirred up with water, and the dish is then ready for eating. Those who are about to partake, squat down around the bowl, and each individual helps himself with his bare hand to the pulpy mass, which he puts into his mouth, chews and sucks, whereupon he spits his mouthful of mush back into the bowl. Another mouthful is taken, and in due course spat out, and so on. This is repeated by all the participants of the meal until all the sweet and nutritious components of the mess have been used up. What a bowl of »fruit cheese» is like, after half-a-dozen Indians have been eating and spitting for a while, the reader may possibly picture to himself, by the aid of his imagination. 262 252 264 [412]

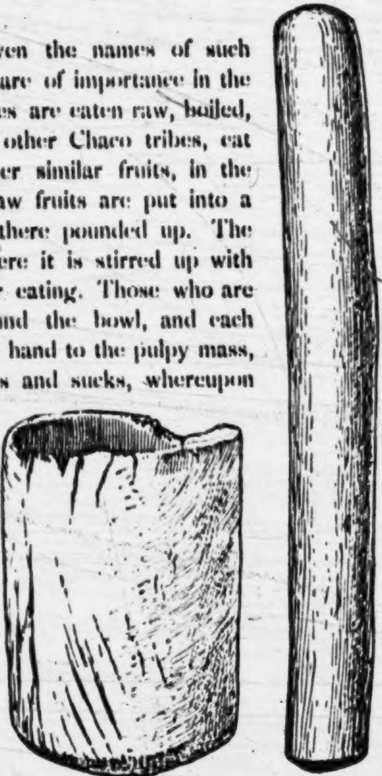

Fig. 122. Mortar and pestle of hard wood, the latter consisting of palo santo. Choroti. Gran Chaco, Bolivia. 1/6. Riksm. 03. 3. 155 and 03. 3. 157. 114 262

In another work of mine I have said that the Choroti eat the *fruits*

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[1] Nordenskiöld (18), p. 53.

[2] v. Rosen. II.

114 of the chaguar (chahuar).[1] This statement, which is erroneous, is due to
262 the similarity of sound existing between chaguar[2] and chañar.[3] The *fruits* of the latter are eaten by the Indians, whilst of the former only the rootstock is edible.

251 By drying, the Choroti preserve vegetables against seasons of shortened food supply.

263 Personally I have not seen the Choroti use salt, but, nevertheless, they possess this condiment. Possibly they, like the Lengua, extract salt from the ash of a plant growing on the Chaco.[4] Salt-making from vegetable ash is known to many primitive peoples.[5]

264 Among the Choroti I never saw men and women eating together.

[462] The preparing of food is, as a rule, the work of the women. The
515 Choroti are not dainty about their food, and the uncleanliness which is
252 a distinguishing trait in culinary matters among these Indians surpasses almost anything I have ever observed among other primitive peoples, with the exception of the Mataco Indians. Of the latter, however, my experience is limited to only a few families, and it may be unfair to judge the whole tribes from those.

271 Water, often muddy, ordinarily forms the drink of the Choroti. When in the dry season the Indians are on the move, or from some reason or other find themselves far away from any river, they sometimes suffer very badly from lack of water.

273 In the season for harvesting wild fruits, such as algaroba, tusca, and chañar, an intoxicating fruit beer is brewed. During the time of year that I visited the Choroti, there were no fruits of which any intoxicating beverage could be brewed; consequently I never had an opportunity of observing either the brewing of beer, or any drinking carousal. This led me to suppose that the art of brewing fermented liquor was unknown to the Choroti. Nowadays the Choroti have learnt from the Chiriguano also how to brew maize beer. Of the Choroti method of beer-brewing, Nordenskiöld has given the following description:

»When tusca beer is to be made, the fruit is first of all ground, and they water added, the whole being thereupon left in a dirty animal hide.

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[1] von Rosen (3), p. 9.

[2] Bromelia serra.

[3] Gourliea decortitans.

[4] Hawtrey (1), p. 287.

[5] For one method of producing salt from plants, see von Rosen (4), p. 240.

arrived at this plantation to look for work. Led by their chiefs, they had 642
made the long journey from the region of their homes. The chiefs, some 554
of whom had met us in the Chaco, whilst others had only heard of us,
wished to pay us a call. Personally I do not possess any notes about
this reception, but I have come across some in Fries' diary. He thus
refers to the incident: »When the Choroti Indians, whom we knew from
Tatarenda and who were now working here, saw us, they came, almost
to a man, and greeted us, being evidently very glad to meet us again.
The principal chief, at the head of all the lesser caziques, was among
those who came and paid us their respects.»[1]

A favoured position in the village community is that held by the medicine 756
men; for their services they are rewarded by a — from a Choroti point [554]
of view — generous remuneration in the form of food and drink. That
among the Choroti the medicine men are held in great esteem, and that
everybody is anxious to be on good terms with them, appears only
natural to anyone with a knowledge of what an important part magical
conceptions play with these Indians. It is largely by the Finlander explorer,
Rafael Karsten — oft-quoted in the present work — that ethnological [114]
science has been enriched by information and detailed reports on the
magical customs and practices of the Choroti, as well as of other Chaco
tribes.[2]

The Choroti Indians believe that man, all his life through, is more or 776
less subject to influences from spirits, who, on the whole, are of a harmful
nature. Especial danger is to be apprehended from spirits on certain
occasions such as child-birth, pubescence and death. Usually the evil is
worked by a spirit, »mohsek», entering a person through one of the
orifices of his body and thereby assuming possession of him. If at birth
a child is deformed or very sickly, it is supposed to be possessed by some [847]
evil »moshek», and is on that account killed.[3] When a girl has attained the
age of puberty, during the first critical, time she must keep a covering [881]
over her head, so that no evil spirit may be able to enter her body by
way of her nose, mouth, eyes or ears.[4] The occasion of a girl attaining
puberty is celebrated with a dance which undoubtedly is of a magical
character.

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[1] Professor Robert Fries: diary, X, p. 14. Italics by von Rosen.

[2] See Bibliography attached.

[3] Karsten (4), p. 176.

[4] Karsten (4), p. 165.

Ashluslay SK5

I.

Introduction and Plan of the Work.

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In the following pages I will attempt to analyse the material culture of two Indian tribes and contribute to our knowledge of their history. For the material of my investigations I have taken two tribes in the Gran Chaco of S. America, the Choroti and the Ashluslay, of whom I gained some considerable first-hand knowledge during my journey in 1908—09. It is only of late that these tribes have been made the object of study.[1]) Their culture is much of the same kind, and has been preserved in tolerably complete primitiveness.

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Hunt[2]), who has studied the language of the Choroti and the Ashluslay, would identify the latter with the Chunupi, a Chaco tribe that has been known for a long time, but his assumption seems to me insufficiently established. In proof of this I here give a few common Ashluslay words, taken from Hunt's list of words, and place beside them equivalent Chunupi words, taken from Lafone Quevedo[3]).

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[1]) Cf., in addition to my own works, those of Hunt, v. Rosen, Herrmann, and Lehmann-Nitsche.

[2]) P. 257. In these notes only the page or the illustration is referred to, to which attention is drawn. The title of the work in question must be sought in the bibliography. Where more than one work is given under an authors name, a number is assigned to each work and quoted in these notes.

[3]) (1), p. 122.

[p. 1]

To these must be added obvious cultural elements that have come directly or indirectly from the white races. A C 174

The task before us is now to determine, as exactly as possible, these conjectural influences from various sources, and to define their nature and range; also, if possible, to find out from what districts the Choroti and Ashluslay originally started for the tracts they now inhabit. A C 121

To this end I have adopted the method of marking on the map of S. America the geographical distribution of a great number of cultural elements characteristic of the Choroti and Ashluslay, i. e. I have marked on the map, as exactly as possible, the distribution of each cultural element throughout the S. American continent A C 128

I have therefore attempted to draw up maps of the weapons, ornaments, articles of clothing, household utensils, and so on, characteristic of the Choroti and Ashluslay Indians in South America.

I have likewise tried to sketch maps of the distribution of various examples of technical skill exemplified by these Indians. For this purpose I have turned to literary studies, besides utilizing the extensive collections that I made during my travels in S. America.

Thus, for instance, in determining the distribution of a cultural element, I have first mentioned its occurrence among the Indian tribes visited by me personally. These are, in addition to the Ashluslay and the Choroti, the Atsahuaca (in the border-land of Peru and Bolivia), Aymara, Baure, Canichana and Cayubaba (in N. E. Bolivia), Cavina (on the Rio Beni), Chacobo (in N.E. Bolivia), Cháma (on the R. Madidi, a tributary of the R. Beni), Chané (on the R. Itiyuro in North Argentina, and the Rio Parapiti in Bolivia) Chimane (on the R. Maniqui, a tributary of the R. Mamoré), Chiriguano, Churápa (near Sa. Cruz de la Sierra). Guarayú (Guarayos, Bolivia), Guarayú-Pauserna, Huanyam and Huari (near the R. Guaporé), Itonama (in N.E. Bolivia) Mataco (in the Gran Chaco), Mosetene (on the R. Beni), A C [114]

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Tambopata-Guarayo (on the R. Tambopata in Peru) Tapiete and Toba (in the Gran Chaco), Tsirakua (in the Chaco Boreal), Yamiaca (on the R. Inambari in Peru), and Yuracáre (on the R. Chapáre and the R. Sécure in Bolivia).

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I have moreover gone through the literature dealing with the Indians of South America, as far as it was accessible to me. In the case of a few cultural elements I could follow in part the statements of FRIEDERICI, PATER SCHMIDT RIVET and others.

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Unfortunately, with regard to extensive tracts, there are but sparse statements about the material culture of the Indians, indeed, about any aspect of the civilization of the Indians. Such tracts as are little known are those round the R. Ucayali and the R. Tapajos. An ideal work for those who would essay comparative investigations similar to the one here attempted, is KRAUSE's about the tribes on the R. Araguaya. One will find there everything one looks for about the tract examined. Of rarely quoted works that I have made use of here, the one by SÁNCHEZ LABRADOR on the Chaná and Mbayá is perhaps the most important.

Of unpublished museum material I have drawn chiefly upon what the Swedish museum had to offer. A great number of valuable particulars have been communicated to me by friends and colleagues, among whom I am indebted to Dr. G. Antze of Hamburg, Mr. Kai Birket-Smith of the National Museum, Copenhagen,(M.C.), Dr. W. Foy, Director of the Rautenstrauch-Joest Museum, Cologne(M. f. V. C.), Dr Franz Heger, Director of the Ethnological Museum, Vienna (M.f.V.W.), Dr. Th. Koch-Grünberg, Director of the Ethnological Museum, Stuttgart (M.f.V.S.), Dr F. Krause, Etnological Museum, Leipzig (M.f.V.L.), Dr J.P.B.de Josselin de Jong, Royal Ethnographical Museum, Leiden, Prof. Dr. L. Scherman, Ethnological Museum, Munich (M.f.V.M.), Dr. Max Schmidt, Berlin, Prof. Dr. E. Seler, Ethnological Museum, Berlin, (M.f. V.B.) Prof. Dr. Karl v.d. Steinen, Berlin, and Dr. G. Thilenius, Director of the Ethnological Museum, Hamburg, (M. f. V. H.).

For several reasons I have confined myself to an investigation of the material culture of the Choroti and Ashluslay Indians. Maps elucidating the geographic distribution of certain conceptions and social circumstances can of course also be put together. Unfortunately, however, it has proved that in such a task one is continually brought up against the difficulty that primary facts are lacking for vast regions.

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I might have taken another tribe than the Choroti and the Ashluslay, and have attempted an analysis of their civilization in the same way. That I should have chosen these particular tribes is due to my possessing a very complete collection of their things, and to these tribes being fairly untouched by the civilization of the white races. In addition to this, I have been greatly interested in the influence of the culture of the mountainous region of the Chaco. In reality, the maps and particulars here given also afford much information about other tribes than those dealt with in the first instance, and I therefore hope that the present work will be of some use to scholars whose researches deal with other parts of S. America.

A few years ago I published a book of travels[1]) in which I gave a fairly full account of the civilization of the Choroti and the Ashluslay. It will therefore be sufficient in the present work to refer to the data necessary for the tables and maps, i. e. the data calculated to throw light upon the geographical distribution and the origin of the different cultural elements.

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Wherever I have come across a reliable authority on, let us say, a certain kind of weapons in the kingdom of the Incas at the time of the Discovery, I have assumed that it

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[1]) «Indianlif», Stockholm, 1910. There is a Translation into German under the title of «Indianerleben», Leipzig 1912. There is also a French edition, which is unfortunately very faultily translated, and against which I must warn readers. There are some errors, too, in the German translation.

A
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[114]

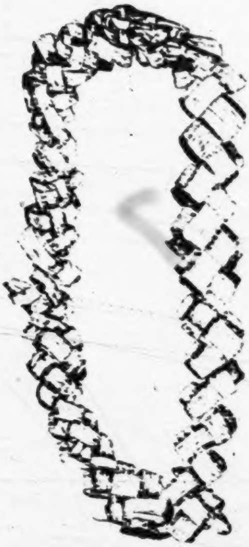
Guiana SR1
Choroti SK6
Ashluslay SK5

/462 cont /

G 285 353 serve as amulets, and, in any case, as ornaments. (Roth, pp. 497-499, Figs. 241-244 and p. 270; Koch-Grünberg, 2, Vol. II, p. 244.)

C 285 353 778 789 In the same way the Chiriguano Indians decorate their huts with these figures, which they take care to have blessed. Exactly as in Europe they keep palm branches as lucky charms.

Ci 114 285 301 Rosen (1, p. 61, Fig. 51) publishes a similar straw amusement which he found among the Choroti and which was pointed out to him as an ornament worn on the forehead. This explorer suspects the exactitude of this information and supposes that a ritual object is concerned. In reality, it is only a "flower," which the Choroti described by Rosen probably received or bought in some Chiriguano mission. It is enough to compare the figure of it that he gives us and ours in order to be convinced of this.



A 285 301 Fig 119. Wreath of plaited palm leaves (amusement or ornament?). Ashluslay. Prov.: Estero Patiño. (1/4 nat. size.)

A C Ci 285 171 Figures made of palm leaves are not, however, unknown to the other Indians of the Chaco. The Ashluslay sold me a diadem braided according to this principle (Fig. 119) and Rosen (1 Fig 44, p. 48) reproduces an identical head-ornament which he bought from a Choroti tribe.

Ashluslay SK5
Mataco SI7
Choroti SK6
Tapiete SK13

/1 cont./

000 the Sociedad Cientifica del Paraguay. Having also visited
C A the Churupí Indians at the mission near Lake Escalante, about
M 25 kilometers from the mission at Esteros, I continued my
114 journey on September 5 as far as Linares, where I found a number
M of Mataco Indians, who in part lived in a town some seven
[361] kilometers from Linares and in part had come from the other
side of the Pilcomayo River to Linares.

C A /2/ On September 9 I left Linares and on the next day
114 arrived in Guachalla, from where I visited the Churupí camp
A /tolderia/ about seven kilometers away.

[361] On September 11 I left Guachalla for the fort of Cururenda,
C where I had the occasion to see the Chorote /Choroti/ Indians,
CI who were living in a camp some three kilometers from
114 CI Cururenda, as well as some Toba and Mataco, who came
[361] from the other side of the Pilcomayo to Cururenda.

C On September 15 I continued my journey as far as Oruro,
T 114 in the environs of which I visited the Tapieté. My escort,
Lieutenant Cabello, who knew these Indians well, took me to
T their two camps, one of which is 15 and the other 32 kilometers
[361] from Oruro.

C On September 19 I left Oruro, and passing through
114 Capirendá and Carandayty, in the company of Lieutenant
Díego Corvalan, I arrived in Machareti, where I remained
from September 21-25. Since Machareti is a Chiriguano
town, I had a good chance at this place and at the end of my
journey, to observe this interesting Indian tribe.

Beginning my return on September 25, I passed in succession
through Capirendá, Carandayty, López de Filippis, and
Puerto Casado, arriving in Asunción on October 8.

C [122] Thanks to the great help of the military authorities, it was
possible for me to pass through large areas of the Paraguayan
Chaco during the relatively short time of two months, to get
acquainted with a large number of native tribes of the Chaco,
to take photographs of these tribes, and to make up vocabularies
000 of their different languages. Outside of the Toba, whom I met

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

574 276 [177] only smoke for pleasure, and I doubt whether they ever used the tobacco ceremonially as is the rule among the Indians of tropical South America. The custom is evidently of comparatively recent origin and has been introduced by the whites.

101 *Choroti* is a Guarani name given to our Indians by the Avas (Chiriguano) and now recognized by themselves. Their proper tribal name, however, is *Jóhuaha* [1]), a word the etymology of which is obscure but which seems to be equivalent to »our own people». Among themselves the Choroti never use any other name than Jóhuaha.

●114 In the history of the Gran Chaco, a small and peaceful tribe like the Choroti can have played only an insignificant rôle, and the earliest European explorers seem not to have known them. The first author who mentions them is Father Lozano, S. J., who in his book of 1733 calls them Xolótas. But he tells us absolutely nothing about them, and the same may be said of several later travellers who occasionally mention them. The Swedish traveller von Rosen, who made a short visit among the Choroti in 1902, has published a small study of these Indians under the title *The Chorotes Indians of the Bolivian Chaco* (Stockholm, 1904). But v. Rosen's paper is based on very superficial observation and contains several errors which make its ethnographic value rather problematic. [2]) This may partly be due to the fact that v. Rosen never visited the Choroti in their own land on the other side of the Pilcomayo river, but only those families of the tribe which have been in the habit of living for certain periods near the village Caiza, situated just north of Yacuiba, at the easternmost cordilleras of the Andes.

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[1]) Nordenskiöld erroneously gives this name as *Yóshuahá* (*Indianerleben*, p. 28) and Hunt equally erroneously as *Yofuaha* (*El Choroti o Yofuaha, Revista del Museo de La Plata*. Bd. 23. Liverpool, 1915). The Indians themselves most clearly pronounce their name *Jóhuaha*, with the accent on the first syllable. The f-sound is lacking in the Choroti language, as in the languages of many other South American Indians.

[2]) Thus, when v. Rosen says that »polygamy only occurs among the rich, and the caciques have quite a number of wives», this sentence alone contains three mistakes. First, the Choroti are strictly monogamous, any form of polygamy being prohibited by their social morality and their women, who are extremely jealous; secondly, there are no »rich» people among the Choroti, all being equally rich or equally poor; and thirdly, although we may speak of caciques or chiefs among them, these have very limited power and do not distinguish themselves from the rest of the tribe in the way v. Rosen's statement seems to indicate. — Evidently v. Rosen has confounded the Choroti chiefs with those of other and more advanced tribes, probably the Avas (Chiriguano) or the Tobas.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

In 1908 another Swedish ethnographer, Erland Nordenskiöld, lived in all for about three months among four or five of the Pilcomayo tribes, and in his popular book *Indianerleben in El Gran Chaco* (1912) has given a general account of the material culture and the daily life of these natives. For detailed and methodical studies of their social customs, religious beliefs, etc., Nordenskiöld had no time and no training, and probably very little interest, since the main object of his travels in the Gran Chaco was to make ethnographic collections for Swedish museums. It is curious that although Nordenskiöld lived on very friendly terms with the Choroti and the Ashluslay and tried in every respect to accommodate himself to their customs, he could find out nothing about their intellectual culture and religion, not even the name of their spirits. Thus for instance Nordenskiöld erroneously describes the dances of the Choroti as being purely profane, overlooking their magical or religious character, which of course gives them their chief interest. As to the Tobas, the most important of the Chaco tribes, Nordenskiöld did not visit them at all. C 114

The English missionary Rickhard J. Hunt, who visited the Choroti after I had left the Chaco, has chiefly studied their language. M 114

My own task was to complete Nordenskiöld's general account of the material culture of the Chaco tribes with as detailed studies of their customs and intellectual culture as possible. For this purpose I stayed about eight months among the Choroti, after which I settled down among the Tobas, making also occasional visits to some Mataco tribes which were culturally closely related to the Tobas. My studies were rendered particularly difficult by the fact that neither the Choroti nor the Tobas speak Spanish, while interpreters were impossible to obtain. I had to pick up both languages gradually, which of course meant a considerable waste of time since language to me could only be a medium for the study of native culture and was not in itself the object of my studies. It was not until the end of my stay among the Choroti that I met some Indians who could speak a little Spanish. Another thing which, in its way, hampered my studies of the Choroti was the difficulty of getting provisions during the dry season, when the natives themselves are often brought to the very verge of starvation. Since the river was as yet too swollen to allow me to cross it for the purpose of returning to Yacuiba, I myself had similar difficulties until at last I got some provisions from one of the few settlers living on the Pilcomayo.

Owing to these circumstances the material collected by me among the

776 888 766 old men to die a natural death, but when they grow very weakly and sickly they kill them with an arrow-shot in the heart, whereupon they burn them with all their property instead of burying them, which among the Choroti is the general mode of disposing of the remains of the dead. The reason which they gave me for this custom was that if an old man is allowed to die a natural death he will be changed into an evil demon (*mōhsek*), who will rage in the village and kill all the people. This, according to their idea, can be prevented by giving the old men a premature, violent death.[1] In order to understand this custom we must, moreover, [754] take into consideration that to the mind of these Indians *all* aged men are more or less versed in the magic art, *i. e.* are sorcerers, and the spirits of sorcerers are specially feared.

775 The fact that old men and sorcerers are believed to be transformed after death into evil *mōhsek* seems to suggest that these spirits or demons are nothing but disembodied human souls, who have in the after-life been changed into supernatural and mostly evilly disposed beings. As a matter of fact, the death-spirit residing in the grave where a dead body has been buried is called *mōhsek* by the Choroti. Like most other primitive peoples the Choroti fear the burial-places because they fear coming in contact with the spirits haunting these places. It seems therefore evident that at any rate the souls of certain persons are changed into *mōhsek* after death. The word *mōhsek* may therefore be best translated into 'ghost'. The Indians only use it of the disembodied souls or spirits of dead men, but not of the shadow-like »double» of a living person, for which they have no particular word. Even when speaking of a recently departed person they generally simply use the expression *yăl*, *i.e.* »the dead one». *Mōhsek* particularly seems to have reference to the spirits of men who died long ago, and these spirits as a rule are more evilly disposed and more feared than the spirits of Indians recently departed.

776 The Choroti, like other Chaco Indians, do not deify inanimate objects of nature to the same extent as many other South American tribes. Yet

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[114] [1] Nordenskiöld's categoric statement as to the practice of infanticide and parricide among the Choroti therefore is not correct. (»Der Mord beschränkt sich auf den Kinder- und Elternmord»; and: »Wenn ein Indianer seine alte blinde Mutter oder seinen verkrüppelten Vater tötet, so befreit er sie selbst von einem Leben das ihnen eine Last ist und sich selbst von einer Extramühe im Kampfe ums Dasein.» (*Indianerleben*, p. 38). As I have stated above, the killing of parents is limited to old men, and this custom must wholly be explained from the superstition of the Indians. Infanticide again is limited to the cases mentioned by me in a previous chapter.

116

116 TEXTS--a full set of pages from each processed source, arranged in page order, as a means of establishing the context for any particular slip. Sets are arranged in the numerical order of the sources. See also:

Literary texts 539

ETHNOGRAPHICAL RESEARCH WORK

DURING THE SWEDISH CHACO-CORDILLERA-EXPEDITION 1901-1902

142
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BY

COUNT ERIC VON ROSEN

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ETHNOGRAPHICAL RESEARCH WORK

DURING THE SWEDISH CHACO-CORDILLERA-
EXPEDITION 1901—1902

[p. i]

[pp. ii-iii are blank]

[P iv]

On the way to Pilcomayo. The riders, counting from the leader, are: Baron Nordenskiöld, Herr von Hofsten, Professor Fries and a Bolivian soldier. Dry forest region between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

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ETHNOGRAPHICAL RESEARCH WORK

DURING

THE SWEDISH CHACO-CORDILLERA-EXPEDITION

1901 1902

BY

COUNT ERIC VON ROSEN

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CLARENCE B. MOORE

With the Author's deeply-felt gratitude

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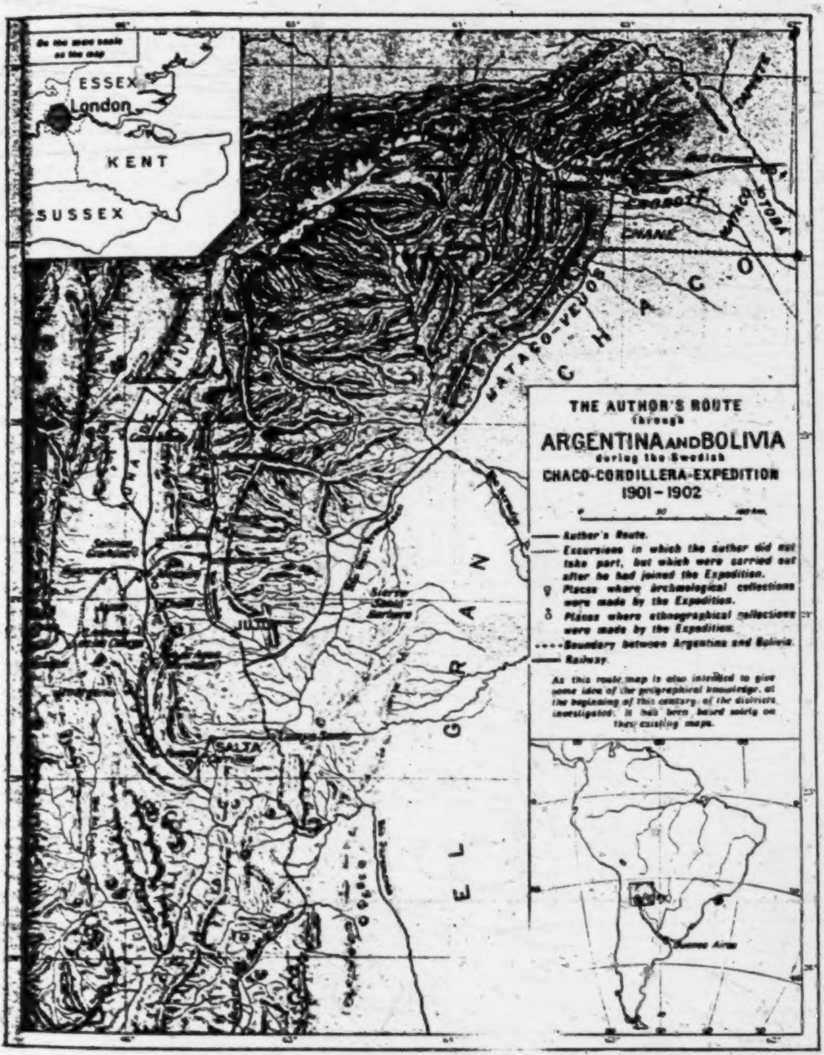
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ESSEX
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SUSSEX
CHOROTI
CHANÉ
MATACO
TOBA
MATACO-VEJOS
EL GRAN CHACO
JUJUY
SALTA
Sierra Santa Barbara
THE AUTHOR'S ROUTE
through
ARGENTINA AND BOLIVIA
during the Swedish
CHACO-CORDILLERA-EXPEDITION
1901 – 1902
Author's Route.
Excursions in which the author did not take part, but which were carried out after he had joined the Expedition.
Places where archæological collections were made by the Expedition.
Places where ethnographical collections were made by the Expedition.
Boundary between Argentina and Bolivia.
Railway.
As this route map is also intended to give some idea of the orographical knowledge, at the beginning of this century, of the districts investigated, it has been based solely on then existing maps.
Buenos Aires

[p. ix]

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PREFACE.

In my books, »En förgången värld» and »Bland indianer»[1] I have given an account of the origin and composition of the Chaco-Cordillera Expedition, described the vicissitudes and adventures that befell it among the mountains of the Andes and in the Gran Chaco, and published the result of the researches I carried out during my sojourn in the Andean mountain region and the Gran Chaco. The present work is an English translation of such chapters of »En förgången värld» and »Bland indianer» as deal with my ethnographical studies. I give here below a complete list of the publications representing the result of the scientific work of the expedition. 114 113

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— HALLAZGO ARQUELOGICO A 6,100 METRES DE ALTURA. HISTORIA; Vol. I. BUENOS AIRES 1903.

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[1] von Rosen, E. (1), (10).

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— DIE FOSSILEN PFERDE SÜDAMERIKAS. KUNGL. SVENSKA VETENSKAPSAKADEMIENS HANDLINGAR; Vol. 48. UPPSALA AND STOCKHOLM 1912.

114 The Chaco-Cordillera-Expedition set out from Sweden, in 1901, in two different parties. The first of these, which consisted of Baron Erland Nordenskiöld (the leader of the expedition, at that time a zoologist), Dr. Robert Fries, botanist, and Oscar Landberg, a taxidermist's assistant, left the home country on March 25th, arriving on May 12th at the town of Salta, in N. W. Argentina, the place that had been selected as the starting point and base of our exploration of the surrounding districts.

A Swedish-Argentinian, señor Eric Boman, who, during his stay in South America, had also occupied himself with scientific exploration and resear-

ches, was attached to the expedition, partly as an interpreter, partly to assist in the collecting work. When, at the end of February, 1902, our expedition broke up from Tarija, in Bolivia, Boman returned to Argentina.

The second party, which consisted of Herr Gustaf von Hofsten, the author and a servant, left Sweden on August 12th and reached Salta on September 25th. Herr von Hofsten was to collect birds for the Riksmuseum, and it was to be my business to carry out archæological and ethnographical research work.

On our arrival at Salta we were met by the other members of the expedition, who a few days previously had returned with abundant collections from an exploring journey into the districts around Sierra Santa Barbara, which had proved exceedingly successful from a scientific point of view. After having completed our equipment and a sufficient number of peons had been engaged, the expedition set out for Puna de Jujuy, a desert-like plateau at an altitude of about 3,500 metres above sea level, which we reached on October 14th. Here we made our main camp at Moreno, from which place many and long exploring journeys were made; among other places to Casabindo and Morohuasi. Ruined cities, graves, and other relics of antiquity were explored and examined, and the flora and fauna studied.

During our stay in the Puna region, which lasted over two months, there were made large, scientific collections, which were despatched to Salta before we resumed our journey over the mountains to the Tarija Valley, where we arrived on January 8th, 1902. The expedition here set to work on palæontological, zoological, botanical, archæological and ethnographical research, and large collections were obtained.

We remained in the Tarija Valley until February 24th, when we broke camp and set out for the low country, particularly the immense dry-soil forest region of the Gran Chaco, where we arrived on March 13th.

Our main camp was pitched in a glade in the primeval forest, not far from Caiza in the Bolivian part of the Chaco. An excursion was made to the Pilcomayo, when the author had to swim across the river in order to get into contact with some Toba Indians who at that time had their villages on the eastern bank of the river, approximately opposite Fort Crevaux.

Whilst our expedition remained in the Gran Chaco, the Choroti, Chiriguano and Mataco were also studied, and ethnographical collections acquired

114 from these tribes. At the same time, extensive and valuable zoological and botanical collections were obtained. On April 22nd we broke up from Fort Crevaux. After a toilsome horseback journey through the brambly, and in parts very poorly watered, forests along the foot of the Andes, we arrived on May 11th at Pampa Blanca (the rail-head near Jujuy), whence we continued by rail to Bueños Ayres. On June 27th, 1902, we were back in Sweden again.

EXPLANATIONS.

Objects marked »Riksm.» belong to the Ethnological Collections of the Swedish Riksmuseum. The numerals (e. g.: 03. 3. 1.) give the catalogue number of the objects. The figures within parentheses, together with the name of an author, refer to the list of literary sources given at the end of the book.

ERRATA.

Page 41,	line 1 under fig. 23.	For ar	read or.
» 53,	» 3 from above.	» Caraguatá	» caraguatá.
» 56,	last line.	» Chorotis	» Choroti.
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» 75,	» 10 » »	» Cactus	» cactus.
» 97,	» 16 from above.	» te	» to.
» 126,	» 17 » »	» Chorotis	» Choroti.
» 166,	» 7 » »	» surreptiously	» surreptitiously.

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CHAPTER I.

The Chorotl. (I). The country and the people. Dwellings.

Situation and extent of El Gran Chaco. Some attempts at interpreting the name of Chaco. Journeys of exploration in the Chaco. Geographical discoveries. Ethnographical research among the Chorotis. The name of the tribe. Area of distribution. Physico-anthropological observations. Villages. Huts and their furnishings. Cooking sheds and drying-racks. Burning of villages.

El Gran Chaco (the great hunting ground) is the name given to the 131 vast, partly forested, level country lying between the Andes and Rio Paraguay, the northern boundary of which roughly coincides with the parallel of 19 degrees of south latitude, whilst to the south it extends to about the 29th.

The meaning of the name of Chaco is not known with absolute cer- 136 tainty. Of the attempts at its translation so far made, in my opinion the 114 most likely one is, that »chaco» (in quichua »chacu») means an assembly, or the place for an assembly, especially for the purpose of game hunting on a big scale.[1] Against this supposition the Finnish scientist, Karsten, puts forward the objection that the Gran Chaco is nowise abounding in game, and that consequently the application of the name of »hunting ground» to this region would be hardly suitable; in addition, Karsten points out that there are no certain proofs in existence that the civilization of the Incas ever extended to the Chaco.[2] To this I would reply that although, as is known, *the interior* of the Chaco is deficient in game, its outskirts towards the Andes as late as 1902 to such an extent teemed with game, birds especially, that it is only in certain parts of Africa I have seen anything to compare with it. Therefore I think it very probable

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[1] Lindman (1), p. 46.

[2] Karsten (2), pp. 23 and 24.

[136] 114 that hunting expeditions were sent out from the ancient Inca kingdom to the Chaco, among other things for the purpose of obtaining rare and valuable material for feather ornaments. If, in the time of the Incas, the reaches of the Chaco bordering on the Andes were as well supplied with game as was the case when we visited those parts — a very probable thing — the mountain-dwellers had no need to make any hazardous trips into the far interior of the Chaco. These hunters probably only knew the border reaches, and the name then found appropriate to this region has subsequently come to include the whole of the flat country around the Pilcomayo and the Bermejo. That intercourse was carried on between the mountain peoples living within the ancient Peruvian dominions, and the Chaco inhabitants during the Inca period, may with very great probability be gathered from, inter alia, Baron Erland Nordenskiöld's excellent analysis of the civilizations of two Chaco tribes.[1]

The name, Chaco, has also been translated as »the flight», i. e., the place of refuge,[2] but I do not think it very probable that the conquering peoples would have adopted a name that was only applicable from the point of view of a small number of expelled tribes.[3]

At the time of our expedition, the greater part of the Chaco was on the map shown as an unknown territory. Up till then, no white man had followed the course of the Pilcomayo from the Andes to the Paraguay. Since then, great changes have taken place on the Chaco, and our knowledge of this region has been considerably increased. The course of the Pilcomayo has been mapped, and the Bolivian government has established military outposts practically in the middle of the Chaco.

But to this day large tracts of the Chaco are entirely unknown. This may seem strange, considering that the Chaco to the west and to the east borders on regions that for centuries have been visited by Europeans, and now to a great extent brought under the sway of civilization.

That the Chaco still includes immense tracts that are only inhabited by Indians, may, no doubt, be ascribed to the circumstance that the greater part of it is little suitable for colonization. Only on the border, and along certain reaches of the Pilcomayo and the Bermejo, has it been found possible to carry on agriculture to advantage, and, with the exception of the districts mentioned, the forests are not of such a nature as to lend 114 themselves, in the near future, to profitable exploitation. Neither is there any ground for supposing that in the interior of the Chaco, where the soil in the greater part consists of loess-like strata, there is any prospect of finding any valuable minerals, or any other important products of nature. The great possibilities for cattle-ranching that exist in certain parts of this region, will, however, probably facilitate its colonization. If, contrary to expectation, gold-bearing ground, for instance, were discovered on the Chaco, even those parts of the »great hunting-ground» that are most difficult of access would, no doubt, before long be explored.

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[1] Nordenskiöld (11).
[2] Karsten (2), p. 24.
[3] Cf. pp. 29 and 75.

And it was precisely the thirst for gold and silver that first led white 175 men into the Chaco. The Portuguese, Alejo Garcia, and some countrymen companions were the first whites who visited this region. About 1520 these adventurers, at the head of an army numbering some 2,000 Guarani Indians, marched right across the Chaco, from Rio Paraguay to the Andes, and invaded Peru. From the Indians of Rio Paraguay, Garcia had heard rumours of that country, and of its wealth in gold and silver, and it was covetousness of these precious metals that was the motive force in the hazardous and arduous march through the Chaco. Baron Nordenskiöld has established that this expedition was probably made some year, or years, before Pizarro's arrival in Peru, and that thus Garcia and his companions probably were the first Europeans who obtained personal knowledge of the ancient Inca kingdom.[1]

Although the Gran Chaco, as we have seen, was visited by white men 175 at the beginning of the 16th century, it was only in the latter years of 648 last century that any detailed and reliable information became obtainable of the more inaccessible parts of this region. The French explorer, J. Crevaux,[2] who intended to make extensive research of the country and population around the Pilcomayo, was given no opportunity of carrying out his plan, for, already at the outset of his expedition, in 1882, he was murdered by Chaco Indians, probably members of the Choroti, as 114 well as the Toba, tribe. Another French explorer, Thouar, has described a journey across the Chaco.[3] The Norwegian, Lieutenant Storm, has published important observations from two expeditions of his on the

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[1] Nordenskiöld (16), p. 46 et seq.

[2] Crevaux (1), pp. XIII–XVI.

[3] Thouar (1).

114 Pilcomayo,[1] whilst our countryman, Professor Lindman, has supplied very valuable contribution to our knowledge of the eastern parts of the Chaco.[2] Among the more important works on the Chaco that had been published prior to our expedition, those by Lozano[3], Peña[4] and Fontana[5] should also be mentioned, as they contain geographical, meteorological, ethnological, zoological and botanical data of great interest.

At the time of our expedition, the regions including the course of the Pilcomayo through the more central parts of the Chaco were, from a scientific point of view, still to a large extent completely unknown. It was in the attempt to explore these regions that Crevaux perished, and in the interior of the Chaco the two explorers, Ibareta and Boggiani, had also been killed by Indians. The murder of Ibareta took place the year before our expedition, and Boggiani fell a victim to the Indians in the same year that we visited the Chaco. Lista, too, met his death in this region shortly before our journey; according to his companions' statement, he took his own life.

After our expedition, and apart from Baron Nordenskiöld, many other explorers, among them the Finlander, Professor Rafael Karsten, have travelled in the Chaco and carried on extensive research work.

133 As I have already mentioned, the Gran Chaco is a partly wooded plain. In the eastern or central parts of the region the ground is not known to present any marked elevations, and it is only in the portion nearest to the Andes that any appreciable hills or rises are found.

Three large rivers, the Pilcomayo (fig. 1), the Bermejo and the Salado (Juramento) flow through the Chaco from north-east to south-west. Besides these, all the year round water-bearing rivers, there are, during the latter part of the dry season, only a very few water courses, the majority of which periodically dry up for part of the year; consequently, the country is exceedingly waterless.

132 During the rainy season, which practically coincides with the summer
133 and, therefore, lasts from and including November until the end of April, the volume of water in the rivers increases rapidly, and here and there the rivers rise above their banks and flood large areas. Beds of water-

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[1] Storm.

[2] Lindman (1) and (2).

[3] Lozano (1).

[4] Peña (1).

[5] Fontana (1).

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133 courses that during a great part of the year are without a trace of moisture, in the rainy season turn into mighty rivers (as Rio Seco, fig. 2), and during this period all depressions in the ground are filled with water, so that the dry-soil forests and grass steppes of the Chaco to a large extent are under water. Vast areas then change into typical marshland, with the fauna and flora that characterize marshes.

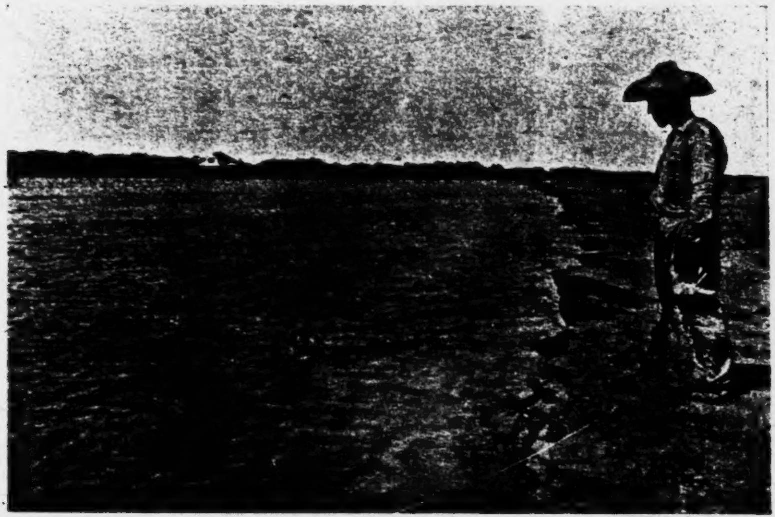

Fig. 1. The author testing the currents of the Rio Pilcomayo, so as to calculate the course for a later swim across. On the bank, a Bolivian soldier from Fort Crevaux. Gran Chaco. Bolivia.

132 The climate of the Chaco is tropical. During the summer-half of the year, the heat, especially in the dry-soil forests, is extremely trying. On the open grass steppes the heat is often tempered by currents of air, but in the forests the air is usually perfectly still, and as the stunted and scantily foliaged trees, of which the dry-soil forests of the Chaco mainly consist, hardly afford any shade at all, here the heat feels exceedingly oppressive. In the winter time the heat is naturally not so trying (at nights the temperature may go down to + 10° C.), but dust storms and dearth of water are the cause of long journeys on the Chaco even during this season being often attended by considerable difficulties and discomfort.

137 The dry-soil forests of the Chaco (figs. 3, 4, 5) consist of, generally, low-growing trees and thorny shrub, the latter often forming deep, impenetrable stretches of jungle. Species of columnar cactus (figs. 5, 6) are fairly common. The bottle tree (Chorisia insignis), which is typical of South American arid regions, is fairly numerously represented, but is never found growing in actual groves (figs. 4, 7). The thorny caraguatá, or chaluar, plant (Bromelia serra) is widely distributed on the Chaco, and is in many respects of great importance to the Indians, its chief and foremost utility being that, from its fibre, excellent yarn can be spun. Of great value to the population of the Chaco are also certain trees, growing in the forest, with edible fruit, of which, perhaps, the algaroba tree (Prosopis alba) is the most important. Game, as a rule, is very scarce in the [136] dry-soil forests; even in a whole day's shooting one may fail to come across more than a few bush partridges or wood pigeons. In some parts, however, ostriches (Rhea americana) are fairly common.

The plains, or steppes (see fig. 8), are often dotted with single tress and shrubs; usually species of acacia. Here and there the fan palm (Copernicia australis) may be seen growing in groves, or even forming whole forests; figs. 9, 10; scattered specimens of this palm are also found in forests that are mainly composed of other trees, fig. 79.

136 137 In the rainy season, when numerous shallow pools have formed, wading birds may be seen in large numbers, and those parts of the Chaco that are nearest to the Andes, are, at least part of the year, *exceedingly abundant* in wildfowl. Then waders and water birds are, naturally, especially common on and around the flooded marshes that, only during a certain portion of the year, largely form on the Chaco. These marshes mostly have a vegetation of typical marsh plants; but I have also noticed that the species of fan palm, that is common in the Chaco, thrives well enough in such *periodically* swampy ground.

Near the Andes, the forests of the Chaco are made up of tall trees with a luxuriant undergrowth and a great wealth of lianas (figs. 11, 12—14). These forests, which are of an exuberant, tropical, primeval character, abound with game, such as jaguars, pumas, tiger cats, tapirs, wild boar, water pig, deer, ant-bear, armadillos, bush partridges, toucans, parrots, and a number of other birds, suitable for food.

136 The few rivers and watercourses with which the Chaco is supplied, are

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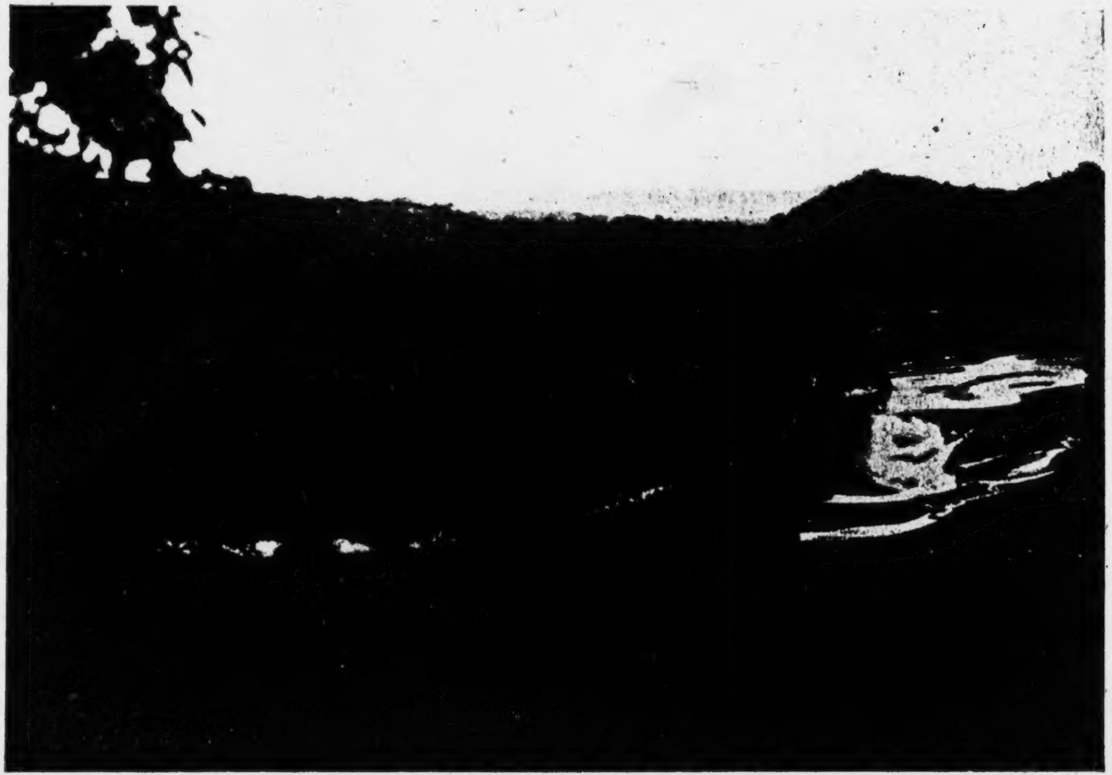

Fig. 2. Rio Seco. Gran Chaco. Argentina. Photo. E. v. R.

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136 very abundant in fish, and in their waters, as in most of the larger lagoons, alligators (Caiman sclerops) are present (fig. 15).

101 El Gran Chaco was in beginning of this century the country of the free Indians. Of the many tribes that inhabit this vast region, I have come into contact with Choroti, Chiriguano, Toba, Mataco and Tapiete, but it was only from among the first-mentioned that I had an opportunity to obtain any extensive collection.

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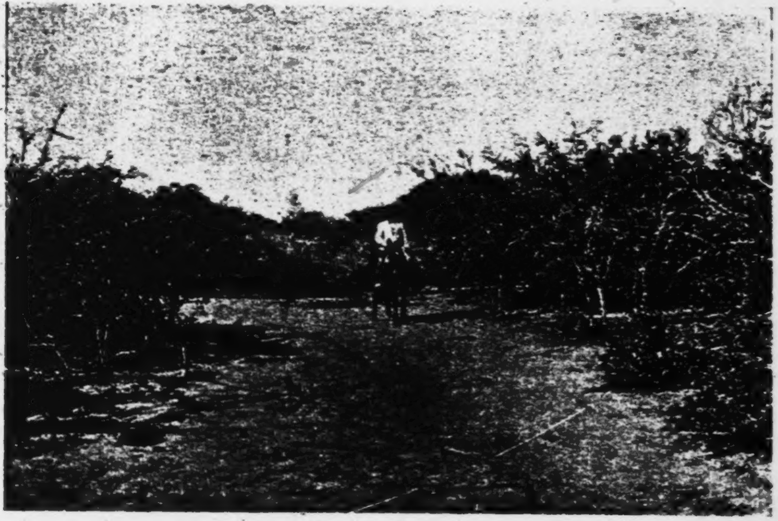

Fig. 3. Dry soil forest region. Gran Chaco. Bolivia. Photo. Rob. Fries.

101 114 In the literature dealing with the Chaco, there was, prior to our expedition, not to be found much information concerning the Choroti. Their tribal name, in the form of »xolota», was, however, known already in the 18th century, when it was, probably for the first time, mentioned by Pedro Lozano, who, in a work published in 1733, enumerates a long string of names of tribes inhabiting the Chaco.[1] In his work, »Explorations dans l'Amerique du Sud», Thouar only gives a few, stray, items of information about the Choroti, he having come across that tribe on the Pilcomayo. The Choroti were, therefore, at the time of our expedition a

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[1] Lozano (1).

101 114 tribe practically unknown from an ethnographical point of view, a circumstance which accounts for the interest paid to the incomplete description of the material culture of the Choroti tribe that I put before the 14th International Congress held at Stuttgart in 1904.[1] My lecture, which was also available in print, was in extenso incorporated with the report of the proceedings of the Congress,[2] and later appeared, slightly abridged, in »Anthropologie Bolivienne».[3] For reasons I have stated in the foreword of my book, En förgången värld,[4] my first description of the Choroti must nevertheless be looked upon as a work done in some haste.

114 Since the Swedish expedition of 1901–1902, various explorers have made valuable studies of the Choroti, and considerable increased our knowledge as to the physical properties, mode of life, and customs, of this tribe. The eminent anthropologist, Robert Lehmann-Nitsche, has carried out extensive anthropological measurements of a large number of individuals of this tribe,[5] and has also studied the language of these Indians.[6] Erland Nordenskiöld has made most exhaustive and exact study of the daily life of the tribe;[7] Rafael Karsten has specialized in studying dances and magic rites among the Choroti and other Chaco tribes,[8] and Hunt has made a study of their language.[9] Valuable research work with regard to Indian tribes, who from a cultural point of view are allied to the Choroti, has been done, among others, by Ducci,[10] Fric,[11] Grubb,[12] Hawtrey,[13] Herrmann,[14] Karsten,[15] Koch-Grünberg,[16] and Nordenskiöld.[17] Whilst travelling in the Chaco 1908–1909, Nordenskiöld spent a long time with the Choroti and shared their way of living, as if he had been

[1] von Rosen (3).
[2] Internationaler Amerikanisten Kongress (1), p. 649 et seq.
[3] Chervin (1), Part 1, p. 140 et seq.
[4] von Rosen (1), pp. 1–3.
[5] Lehmann-Nitsche (1).
[6] Lehmann-Nitsche (2).
[7] Nordenskiöld (11), (13), (17), (18), (19), (20), (21) and (22).
[8] Karsten (1), (2), (3), (4) and (5).
[9] Hunt (1).
[10] Ducci.
[11] Fric.
[12] Grubb.
[13] Hawtrey (1).
[14] Herrmann (1).
[15] Karsten (1), (2), (3), (4) and (5).
[16] Koch (1) and (2).
[17] Nordenskiöld (11), (13), (17), (18), (19), (20), (21) and (22).

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Fig. 4. Bottle tree. Chorisia insignis. Dry soil forest region between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

Fig. 5. Cactus (Cereus and leaf-shaped Opuntia). Dry soil forest region between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

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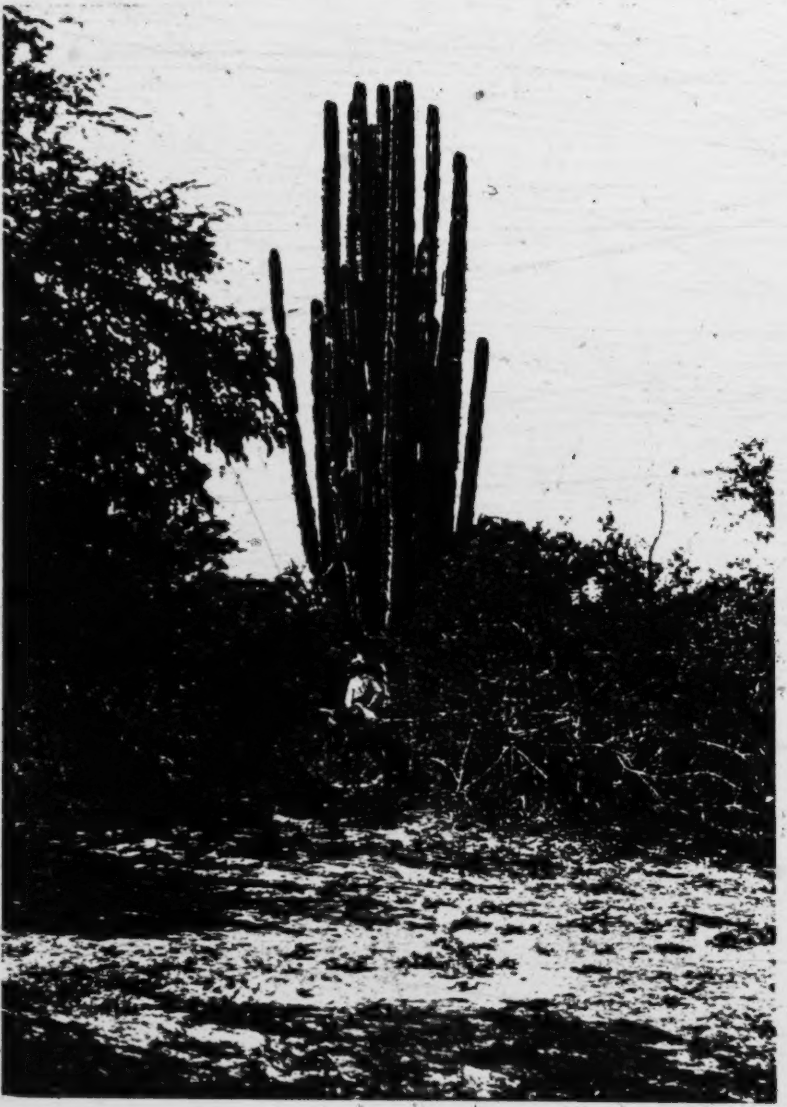

Fig. 6. Columnar cactus in the dry soil forest region. Boundary district between the Andes and Gran Chaco. Bolivia. Photo. E. v. R.

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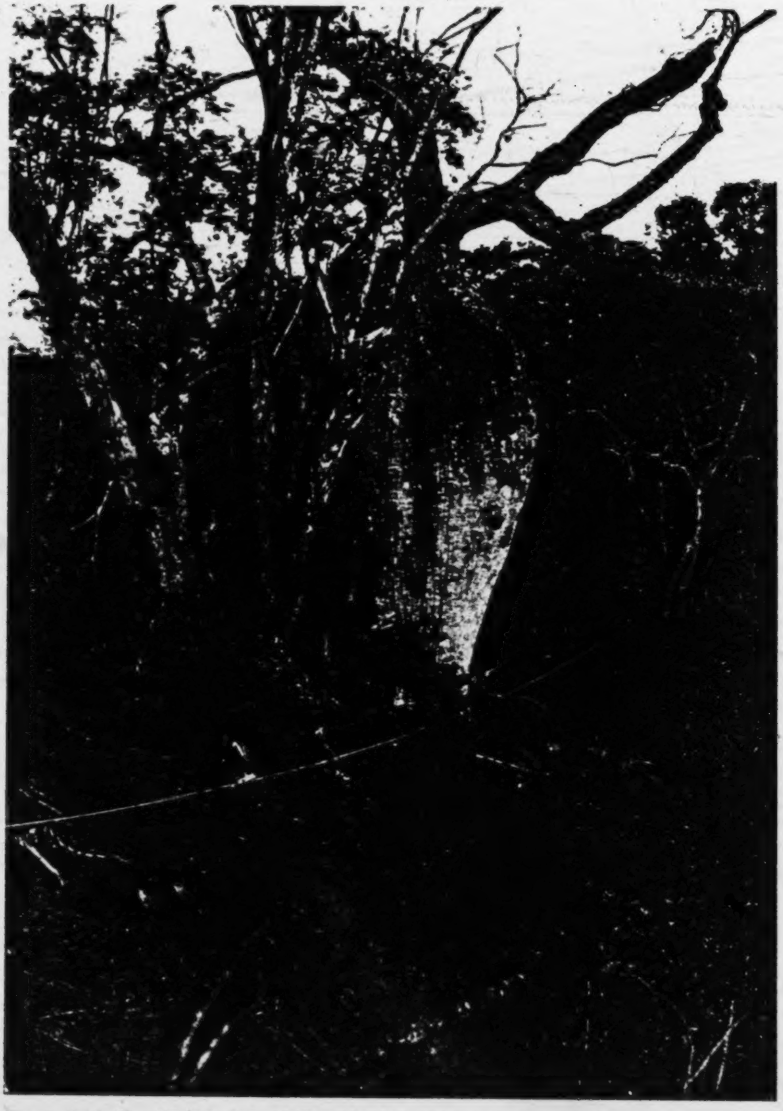

Fig. 7. Bottle Tree (Chorisia insignis). From the dry soil forest area between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 8. Steppe with acacias. In foreground, watchful Choroti Indians. Tatarenda. Gran Chaco. Bolivia. Photo. F. v. R.

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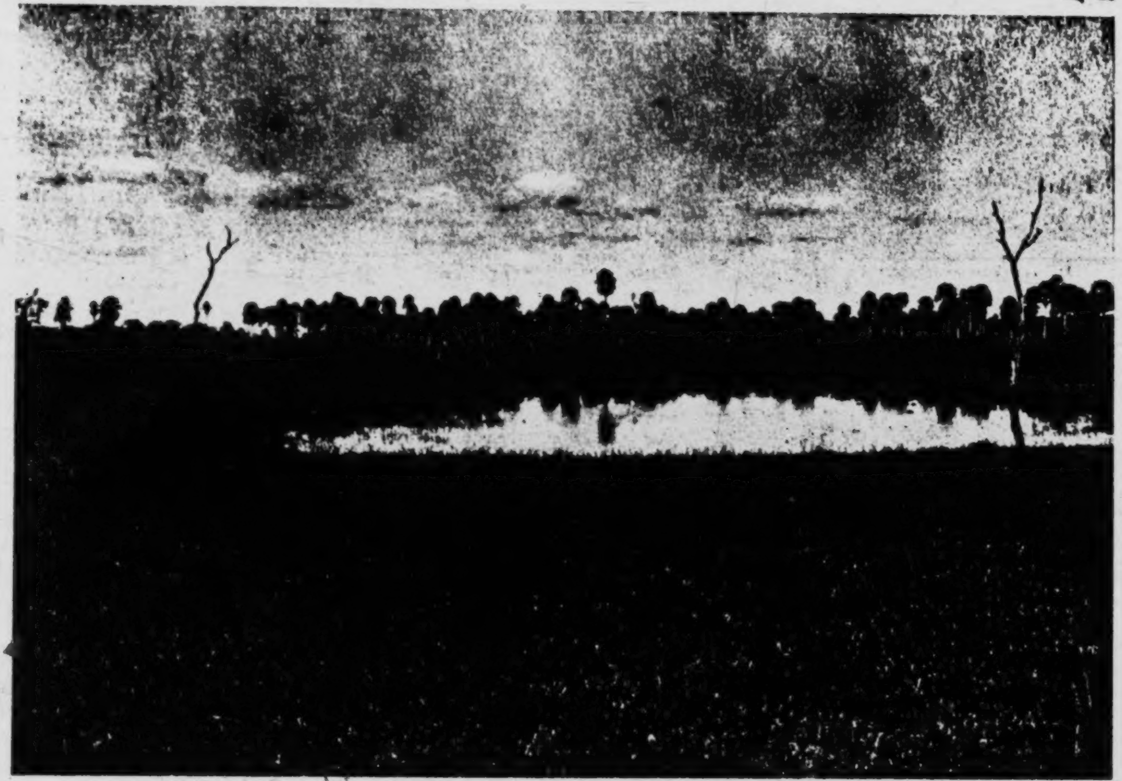

Fig. 9. Lagoon near a grove of fan-palms (Copernicia australis). Tatarenda. Gran Chaco. Bolivia. Photo. E. v. R.

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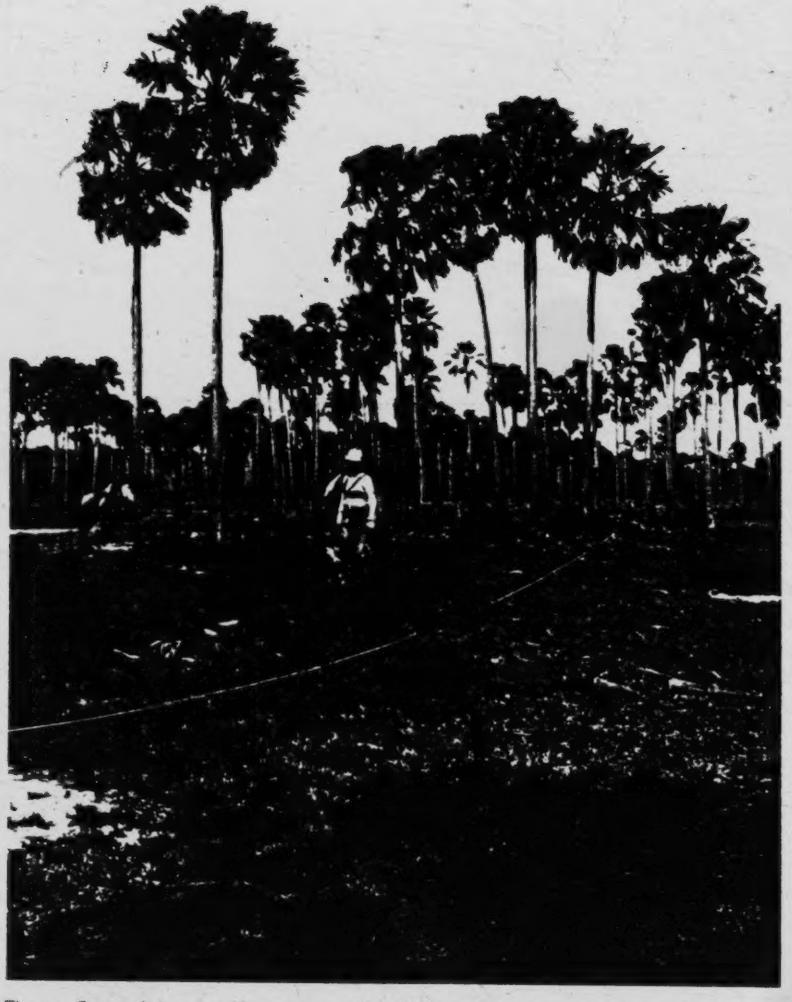

Fig. 10. Grove of fan-palms (Copernicia australis). Neighbourhood of Tatarenda. Gran Chaco. Bolivia. Photo. Rob. Fries.

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114 a member of the tribe. He submitted to almost any sort of unpleasantness and discomfort in order to gain exact knowledge, not only of the daily occupations of the Indians, but also of their feasts and drinking-bouts. Nordenskiöld drank algarobo beer out of the same bowl as slavering old men, with whom he also had to take turns at smoking the same pipe. His face was spat upon, and scratched, and he was obliged to endure the bedfellowship, in his own blankets, of Indians infested with lice. When he wished to be tattooed, he had to put up with a horrible hag spitting on his bleeding tattoo wounds, and her rubbing in the saliva with her fist. But there were occasions when it was a matter of life and death. Once, when Nordenskiöld and his companion, Moberg, and an interpreter, stayed the night in an Ashluslay camp, the interpreter overheard the Indians discussing a plan to take their lives, and from their talk he also gathered that Moberg's fair-haired scalp was a dangerous temptation to the redskins!

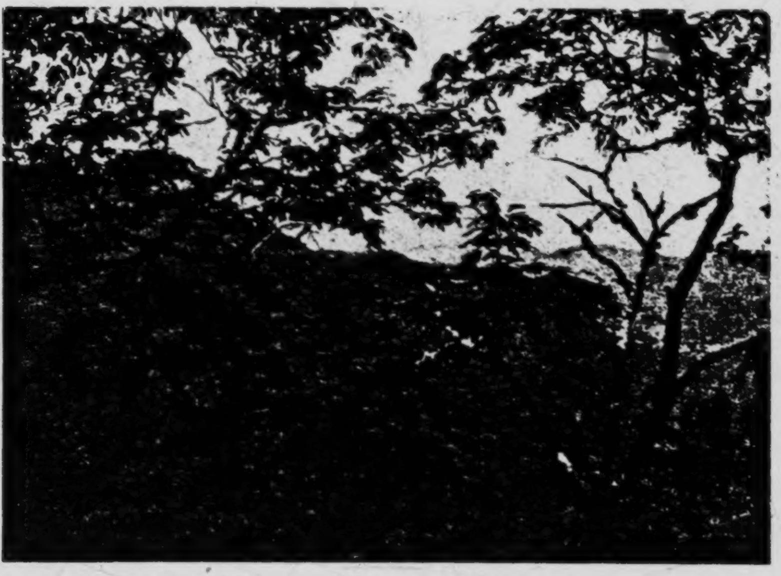

Fig. 11. View in Gran Chaco from Cuesta de Aguayrenda's eastern slopes. Bolivia. Photo. E. v. R.

114 By his living like an Indian among Indians, Nordenskiöld has in an unparalleled way succeeded in enriching ethnographical science, and his research achievement is one of the most noteworthy in the history of modern South American exploration.

101 The Choroti Indians are also called Chorote, Choloti, Tsoloti, Soloti and Solote. The final »s» added to these tribal names comes from the Spanish plural form, and has therefore in later works rightly been left out. The name they call themselves by is »yófuaha», or »yóshuaha», which probably means »pigeon people». If so, the pigeon would be the totem animal of the Choroti.

After the publishing of the valuable research, made by Hunt, of the Choroti language, it has become necessary to class this tribe with the [177] Mataco group, although the material culture of the Choroti in many respects shows an equally close kinship with the civilization of certain Guaycurú and Mascoi tribes, such as the Toba and the Lengua. That the Choroti have had their abode in the Chaco ever since the Inca period is highly probable, because, as already mentioned, their material culture in a [174] very obvious degree points to a strong influence from the ancient mountain civilization to the west.

101 The section of the Choroti tribe among whom I pursued my study, 131 was at the time of our expedition located in the neighbourhood of Caiza (see map). Some of the Choroti I met in this district had, however, their chief place of resort on the Pilcomayo, and thither they intended to return after a visit to the sugar plantations in northern Argentina. As I have [166] been informed, my red friends from the Caiza region at some later time did something or other to the annoyance of the settlers of the district, whereupon they moved further into the Chaco, and have since that time probably never again come into contact with whites. According to Nordenskiöld, other Choroti have, however, immigrated into the country about Caiza. The main part of the Choroti tribe inhabits the region immediately to the east of the Pilcomayo, and roughly between 21° 45′ and 22° 45′ of south latitude.

Our main camp, Tatarenda, was situate a few leagues south-west of Caiza, and the Choroti of whom I made a study were located one league south-west of the camp.

000 Of the Choroti among whom I carried out my investigations, the men

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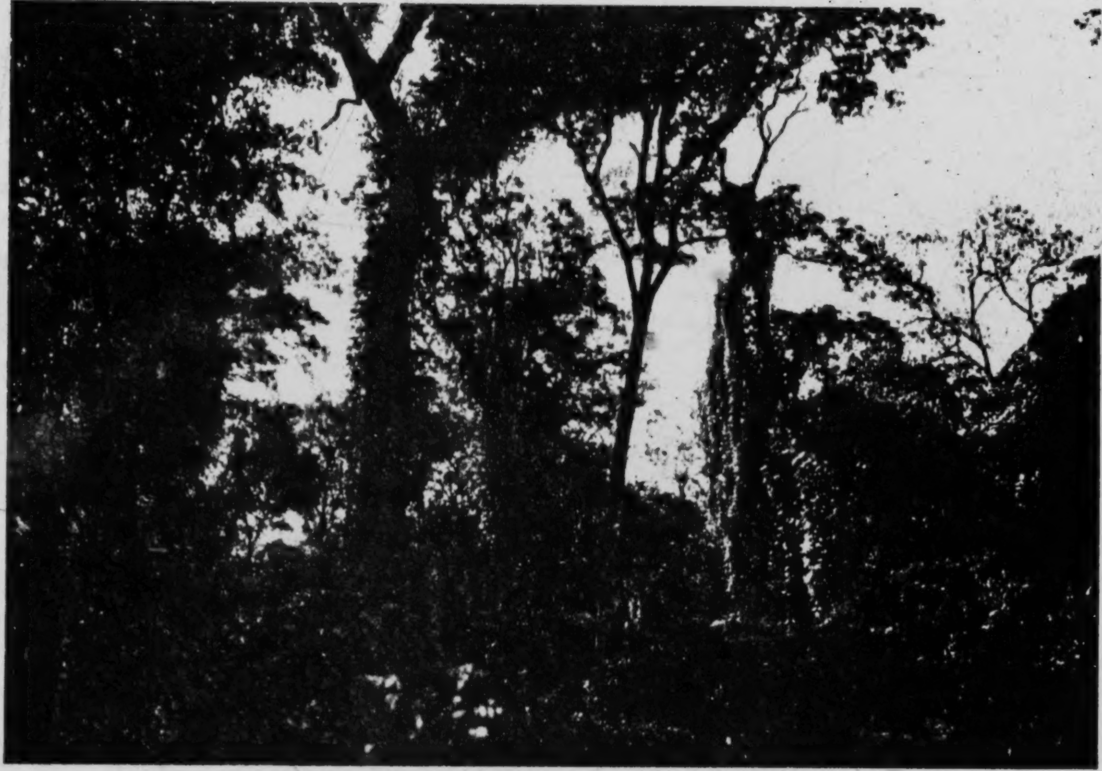

Fig. 12. Primeval forest in the district south of Tartagal. Gran Chaco. Argentina. Photo. E. v. R.

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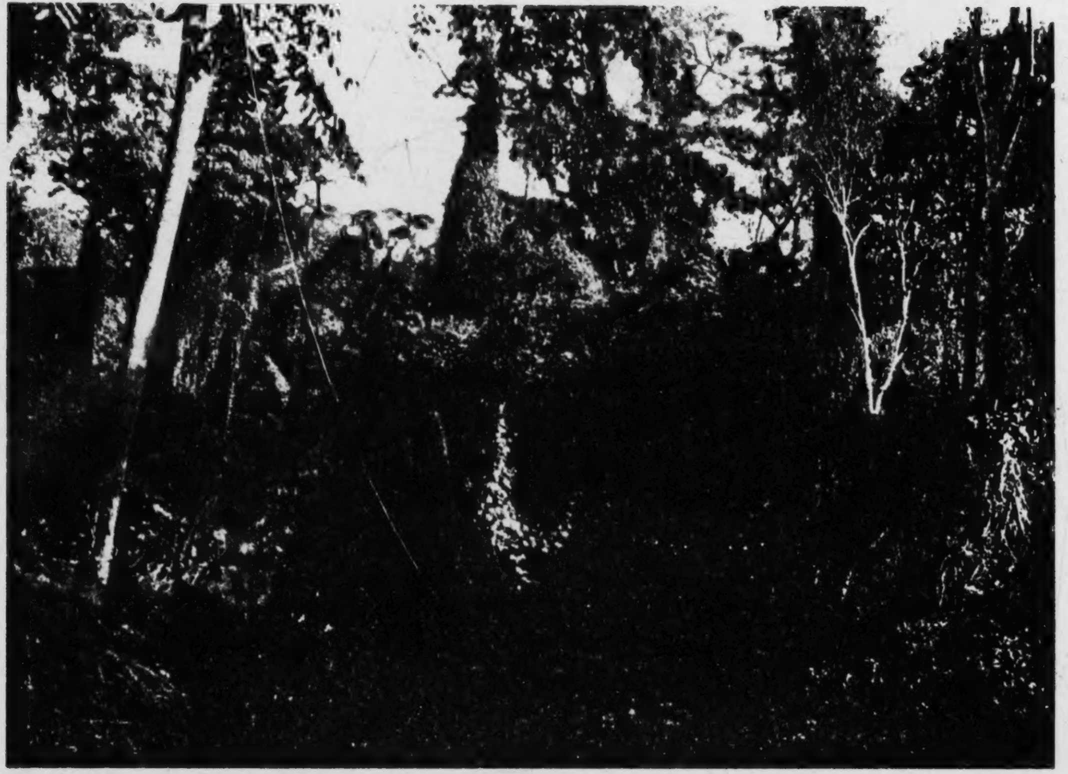

Fig. 13. Primeval forest covered with lianas. To the left, in foreground, these form a net over a young, growing tree; in the background there is visible a forest-giant, the trunk of which is perfectly hidden beneath a cone-shaped, compact covering of interwoven creepers. Primeval forest tract, south of Tartagal. Gran Chaco. Argentina. Photo. E. v. R.

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Fig. 14. Primeval forest, with trees completely covered with, and killed by, lianas. District south of Tartagal. Gran Chaco. Argentina. Photo. E. v. R.

142 Of the Choroti among whom I carried out my investigations, the men appeared to be fairly tall of stature,[1] figs. 16—19, 30, whilst the height of the women was remarkably small, figs. 19—22, 30. I took height measurements of ten men and thirteen women, but as the table got lost during the expedition, I am not able to give the maximum and minimum measurements. But I have the computed average heights preserved in my diary, and they are 170 cm for the men, and 152 cm for the women. The height measurements at a later date made of Choroti (who had come to look for work at sugar plantations in Argentina) by Lehmann-Nitsche show an average height of 161.6 for men (aver. of 20 individuals), and for women 155.3 (10 individuals). That Lehmann-Nitsche and I arrived at such appreciably divergent results is because our measurements were taken of so small a number of people. [136] Lehmann-Nitsche having, however, measured twice as many males as I, it may be presumed that the average height obtained by him more nearly approaches the true average for the men of the tribe than does the result obtained through my measurements.

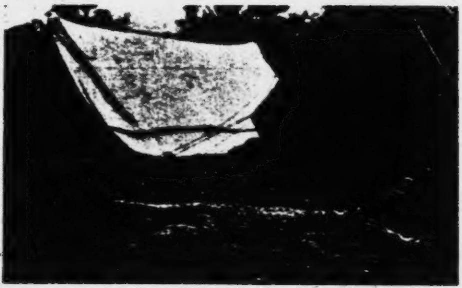

Fig. 15. Spectacle-cayman (Caiman sclerops). Camp at Tatarenda. Gran Chaco. Bolivia. Photo. E. v. R.

[304] The shape of the skull is predominantly dolichocephalic, and shows no traces of artificial deformation.[2] The men, as well as the women, are, as a rule, strongly and proportionately built, although in some individuals the breast is flat and the belly rather big (figs. 17, 37), the latter no doubt [262] resulting from the fact that the Choroti largely subsist on roots and [146] fruits, a kind of diet usually producing distension of the stomach. As an example, in the rural districts of Europe it is no rare thing to come across persons, especially children, who, from a too-protracted diet of potatoes, have developed a distended stomach, a so-called »potato belly».

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[1] That also among the Indians of the eastern part of the Chaco tall individuals are found, is evident from the following statement by Professor Carl Lindman: »Those Indians whom I saw along the Paraguay, opposite Asuncion and northwards, were to a large extent muscular and well-built, some, even, were very tall of body and athletic looking.» Lindman (1), p. 72.

[2] These items of information have been supplied me by Professor Gustav Retzius, who has examined the Choroti skulls brought home by our expedition.

142 The skin colour in adult Choroti is brown, newly born children have light yellowish-brown skin, but it soon gets darker, so that even rather young children, figs. 21 and 22, seem to be of a very dark colour. The hair is lank, and the iris dark brown. From Lehmann-Nitsche's and my own anthropological observations I have compiled the following table.

[141] *The Choroti: some physical features.*

Sex	Average height, cm	Shape of skull	Skin colour, von Luschan's scale	Hair colour, Fischer's scale	Iris, Martin's scale
Men.........	[1] 161.6 [2] 170.0	Dolichocephalic, predominantly	22, predominantly	4, predominantly	4, predominantly
Women ...	[3] 155.3 [4] 152.0	Dolichocephalic, predominantly	18, predominantly	4, predominantly	4, predominantly

145 [805] As the Choroti do not keep count of the age of their children, nor of their own, it is impossible to obtain, by direct questioning, from these Indians any information as to the relation of puberty to age in individuals. One of our Creole servants, who had lived a long time on the Chaco, has, however, told me that Indian children arrive early at physical [582] development (fig. 24), and that the girls are considered marriageable after their first menstruation, which, according to my informant, occurs at the age of ten to twelve. And, according to the same person's statement, the boys are ripe for marrying at the age of about fifteen. The blossoming-time of the women is very brief, and as they grow old they often become repulsively ugly. It is notable that the old women, as a rule, were thin of body, whilst elderly men often were inclined to stoutness.

[621] 361 The Choroti live together in villages. The selection of the village site depends primarily on the supply of water and food, and, in the case of cattle-owning Indians, also on grazing conditions. Often the huts are built alongside shade-giving trees ((fig. 25)) The fan palm found in the [824] Chaco (Copernicia australis), (fig. 10) being valuable to the Indians on account of its easily worked wood, its pith (used for food), and its leaves

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[1] Acc. to Lehmann-Nitsche's measurements of 20 individuals.
[2] » » the Author's » » 10 »
[3] » » Lehmann-Nitsche's » » 10 »
[4] » » the Author's » » 13 »

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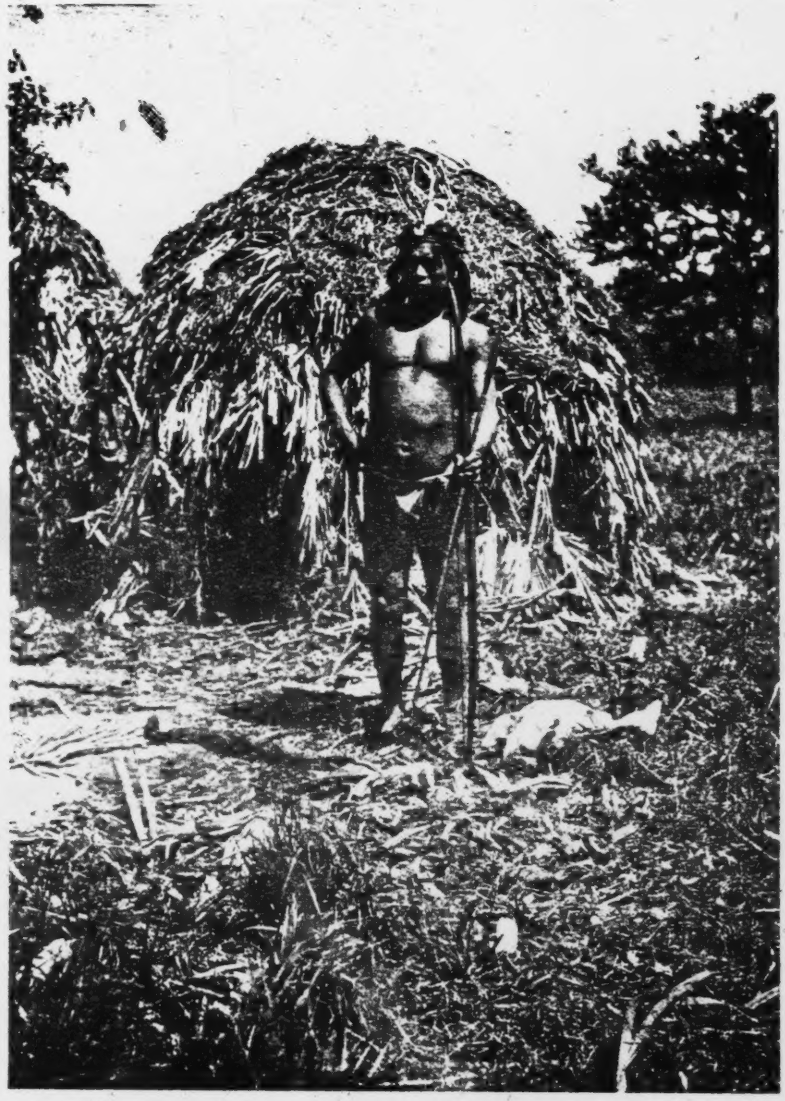

Fig. 16. A man, in front of his hut. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 17. A man, with frontlet of birdskin. Choroti. Tatarenda camp. Gran Chaco. Bolivia. Photo. E. v. R.

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361 (material for roofing huts), the Indians are apt to build their villages in
824 the proximity of some grove, or forest, of palms (»palmar»). As a case
in instance, the Choroti village at Tatarenda was situated quite close to
a palm grove, and not very far from a largish palm forest. It is of im-
[262] portance that algaroba trees should be growing in the neighbourhood, as
the fruit of this tree plays a prominent part in the food arrangements of
these Indians.

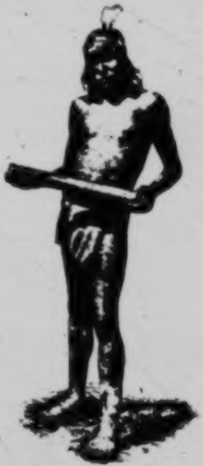

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

342 The huts are of a very primitive character, and
are built in the following manner; With a digging-
stick (fig. 27) of hard, heavy wood, a succession of
[142 holes is dug, or jabbed, in the ground, so as to
291] form a circle with a diameter of 2 metres or upwards.
301 In each of these holes is planted an unlopped, bent-
412] grown branch, thick end downwards, so that the tips
of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

352 The latter do not contain many utensils. Ranged along the wall, bowls
415 made of gourd shell, a few clay vessels and a wooden mortar, are gene-
824 rally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the
Choroti keep all manner of small articles, such as mussel-shell spoons,

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[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-drilling, toilet articles, magic rattles, etc.

352 wooden sticks for fire-drilling, toilet articles, magic rattles etc. Contrary
[513] to the Chiriguano, the Choroti do not use bedsteads or hammocks, but sleep on the ground, with only an animal skin, or a woollen mantle between themselves and the ground.

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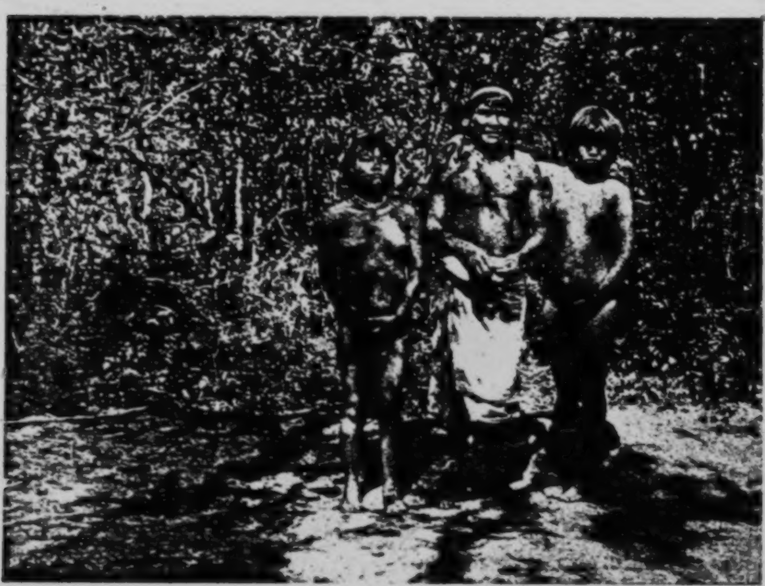

Fig. 19. A man, with his daughters. Choroti. From the dry soil forest region between Caiza and Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

343 At the cooking-fires in front of the huts, the Choroti now and then
251 erect square sheds, with flat, grass-covered roofs. These sheds are constructed like food-storing racks (fig. 28), and are used both as a protection from the sun and as sleeping places during hot nights According to Nordenskiöld, the Indians on the Pilcomayo use the roofs of these sheds for drying fish on.[1] I am of opinion that these sheds, originally, were only designed for the storing, drying, smoking or roasting of fish, and that, therefore, their use as shade-givers or sleeping-shelters is only

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[1] Nordenskiöld (18), p. 36.

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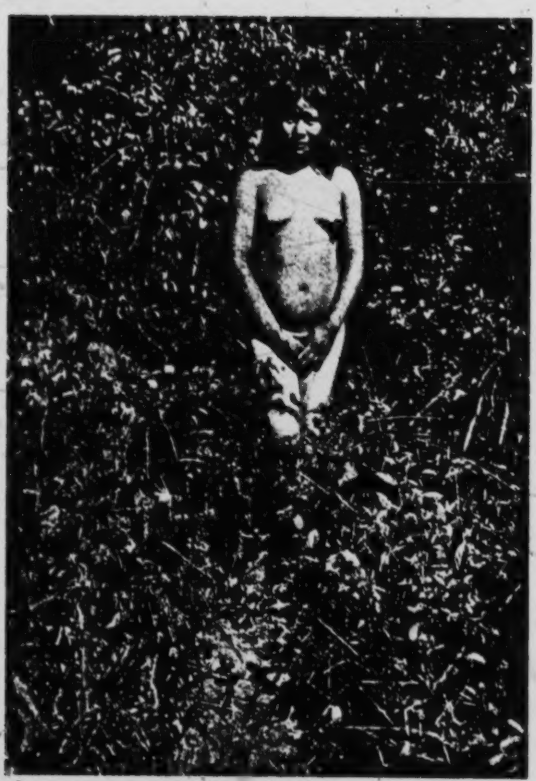

Fig. 20. A girl. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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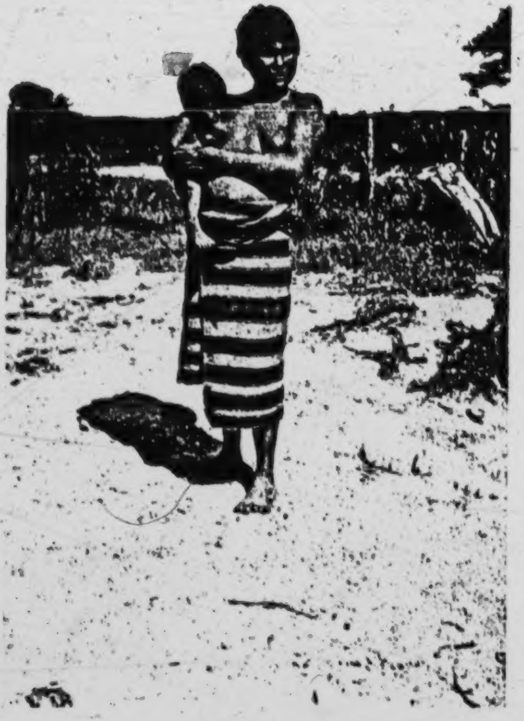

Fig. 21. A young woman suckling her baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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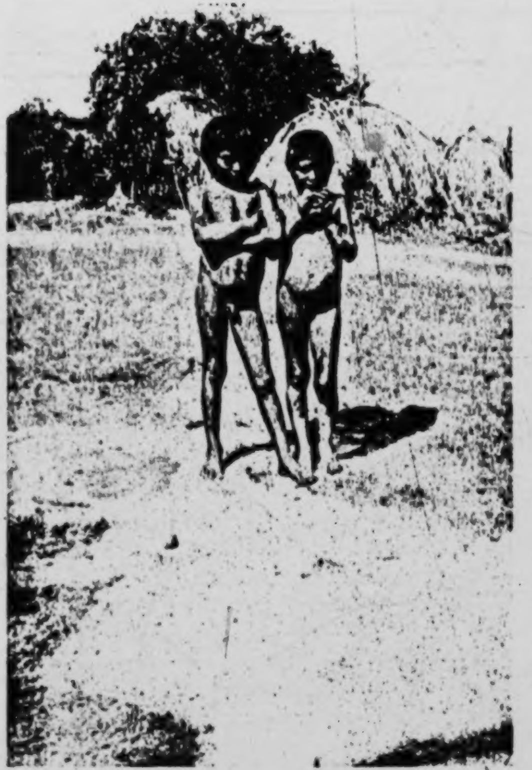

Fig. 23. A boy and a girl (probably about 7 ar 8 years old). Gra
Chaco. Bolivia. Photo. E. v. R.

^[i.e. "OR". -Analyst]

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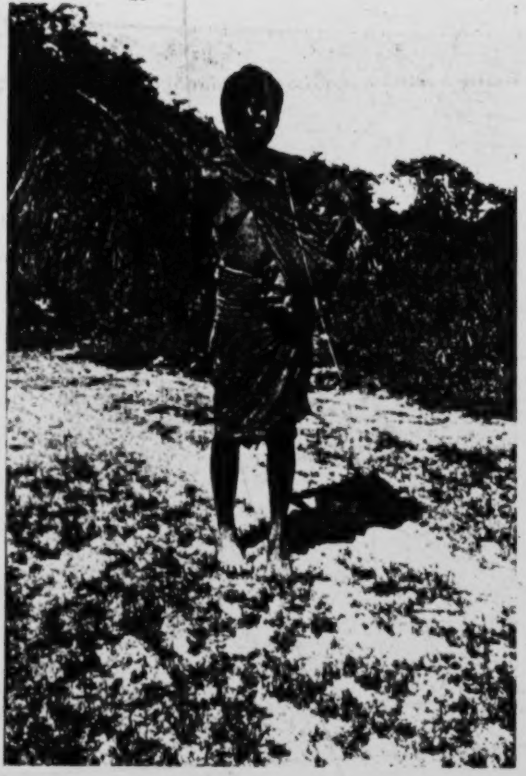

Fig. 22. A woman, with infant. Note that the woman's ear-lobes are pierced, but that she is wearing no ear-lobe discs. Choroti, Gran Chaco, Bolivia, Photo. E. v. R.

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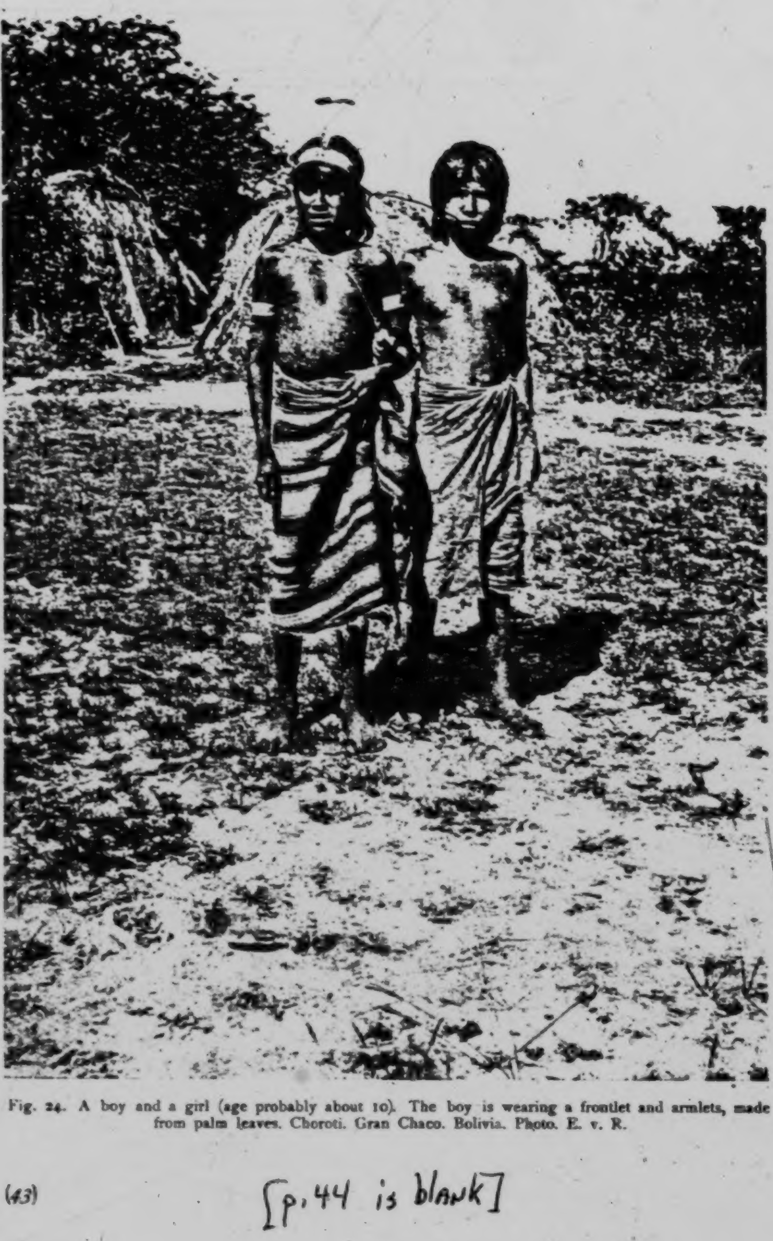

Fig. 24. A boy and a girl (age probably about 10). The boy is wearing a frontlet and armlets, made from palm leaves. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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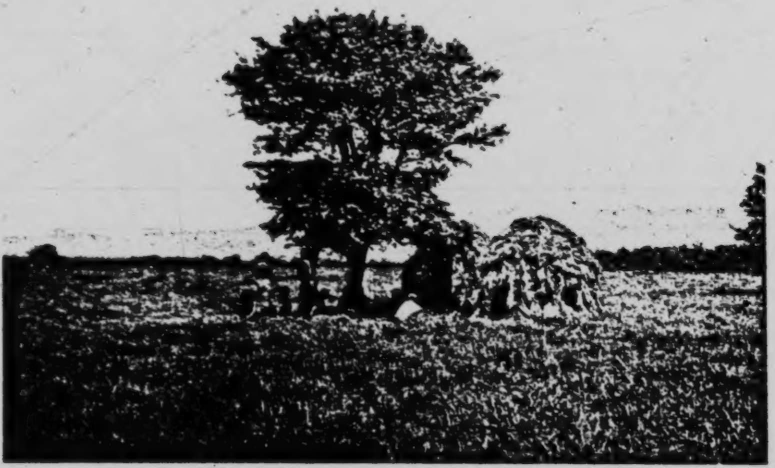

Fig. 25. Huts. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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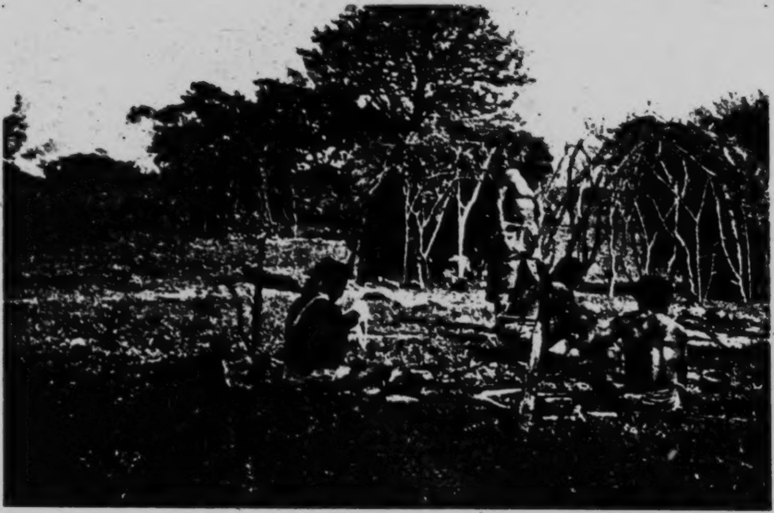

Fig. 26. Hut frames made of tree branches. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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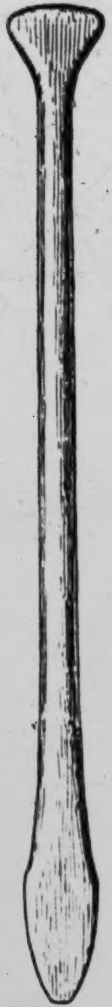

Fig. 27. Wooden digging-stick (wood of Bulnesia sarmienti). The handle and the spade-like point are flat, the rest, of round section. Choroti. Gran Chaco, Bolivia. 1/6. Riksm. 02. 3. 84.

a secondary one.[1] In Central Africa I have seen Wemba 343 and Bisa men construct food-storing racks for smoking 251 food, or drying it by fire. These racks are built on exactly the same plan as the cooking-sheds of the Choroti, [824 although lower than the latter, and not covered with 412] grass. That also the Indians of South America made use of drying or roasting racks, is evident from fig. 29, provided that this picture, reproduced from an account of travel in the 16th century,[2] actually is a faithful representation of an Indian roasting-rack.

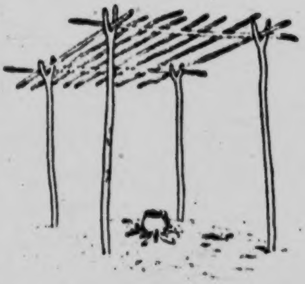

Fig. 28. Frame of cooking-shed; also used as a food rack. Choroti. Gran Chaco, Bolivia. From Erland Nordenskiöld.

The roasting-rack, such as it is reproduced above, may conceivably be a development of the food-storing rack discussed by me in chapter VII (pp. 198, 199), and in the following way: Those usually fairly tall racks that are built for the protection of food against damage from wild or domestic animals, are, as a rule, particularly well adapted for drying fish, etc. When the weather is unfavourable to sun-drying, the idea would present itself of assisting the preserving process by making a fire under the rack, by means of which the food would dry more quickly, at the same time that, through the action of the smoke, it would keep longer from decomposition. By lessening the height of the rack, in the way shown in fig. 29, the effect of the fire would be increased so much that the food would quickly be cooked, and ready for immediate consumption.

When the Choroti quit a dwelling-site in order to 361 build their village elsewhere, they often burn their old

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[1] Cfr. my theory as to the origin of pile-building construction, pp. 198–199.

[2] Schmidel (I), p. 20.

361 huts. With other Chaco tribes the same custom prevails. Thus, for instance, the Mataco Indians burnt their huts on the Pilcomayo when they had learnt from spies that I, with a few Bolivian soldiers, was marching in a direction towards their village. When I arrived at the site of the village, I found, instead of huts, only a number of smoking ash heaps. In times of epidemics, when there are many deaths, it is the Indian custom to burn, and abandon, their villages. It also happens that a village is burnt after having for the first time been visited by a white man.[1]

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[1] Karsten (2), p. 30.

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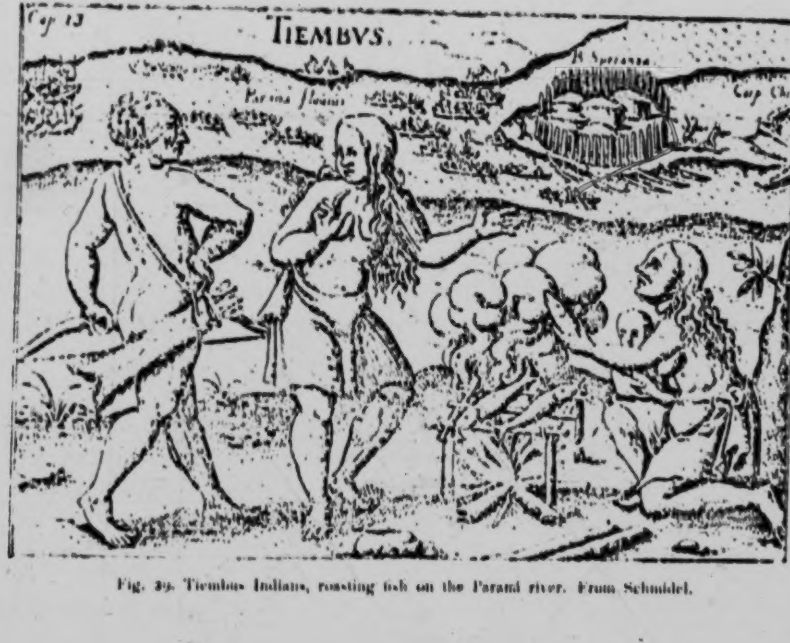

Fig. 39. Tiembus Indians, roasting fish on the Paraná river. From Schmidel.

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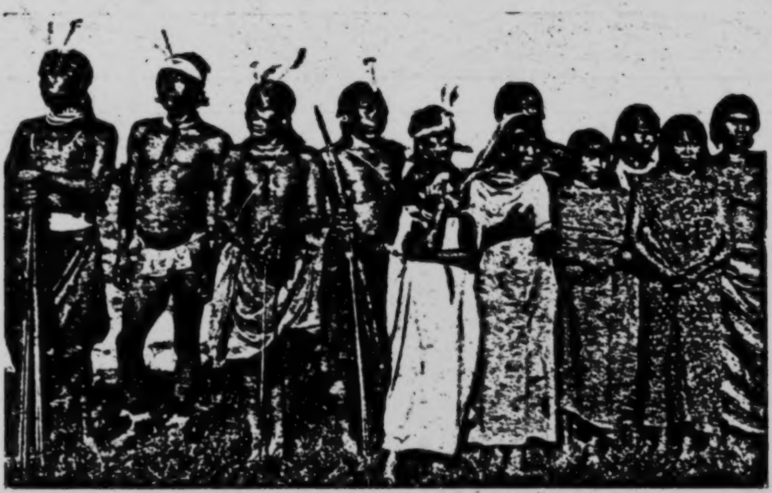

Fig. 30. Men and women. Back row (8 individuals): men and youths. Front row (4 individuals): women. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

CHAPTER II.

The Choroti (2). Dress and ornaments.

Men's dress. Garments of protection against arrows, fish-bites and thorny plants. Hair-dressing. Frontlets. Hair-nets. Head ornaments of feathers, etc. Ear-lobe discs. The ear-boring custom. Necklaces. Armlets. Anklets. Finger rings. Dress and ornaments of the women. Tattooing. Painting of the face. Cutting the hair short. Pulling out of hairs. Toilet articles and their receptacles. Lack of cleanliness. Phthiriophagy.

291 On account of the warm climate of the Chaco, the Choroti do not require much in the way of dress. The smaller children are always completely naked (fig. 23), and when the men are engaged in any harder kind of work, they then usually only wear a woollen apron, passed between the legs and fastened in front and behind to a string made of caraguatá fibre or wool, tied round the waist (figs. 16, 18 and 30). Occasionally they fasten pieces of cloth, of different sizes, round the waist without tucking them between the legs (fig. 30). I have also seen Choroti men wearing broad, fringed, leather belts (fig. 31), but these skirt-like garments seemed to be of rather rare

291 occurrence. I was, however, told that, in olden days they were in general use among the men. Fringed leather belts of the same kind as the one
[71] here shown, are still common among the Lengua in the eastern Chaco.[1] Belts and girdles are fastened round the waist by means of a thin leather strap, passed through, and tied to, two holes at one end of the belt. The two free ends of the strap are threaded through two corresponding holes in the other end of the belt (see fig. 31); are tightened up as required, and tied. In the same way the Choroti fasten their fringe-less leather belts (fig. 171), which are usually made of white oxhide, and serve to secure mantles and skirts round the waist (see fig. 30: the man farthest to the left). The Choroti also wear broad, fringe-less belts of oxhide as a protection for the stomach from arrow shots.[2]

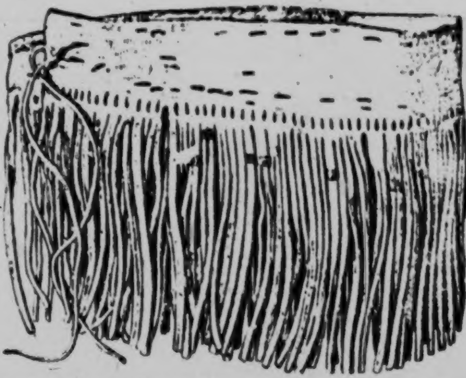

Fig. 31. Fringed leather belt. Mountings of tinplate decorating some of the fringes. Choroti. Gran Chaco. Bolivia. $^2/_5$. Riksm. 03. 3. 8.

Very common garments are large woollen mantles, which the men either wrap round the waist (figs. 17, 30, the two men on either flank), or drape over the shoulders (fig.
[231] 32). The Choroti women weave these mantles of the wool from the
286 flocks of sheep that the tribe owns in the interior of the Chaco. The
291 mantles are usually in two colours, and woven with groups of stripes. I have reproduced, in fig. 33, a corner of a Choroti man's mantle, the size of the mantle being 204 by 183 cm. The fabric, so-called rep, consists of two-thread, tightly spun yarn of a greyish white (the natural colour of the wool) and reddish brown; the warp is rounded, so that the weaving is selvedged all round. The woof is red. The ground colour of the mantle is brownish red, and there are six groups of greyish white stripes running with the length of the mantle. Each group of stripes consists of one broad, greyish white stripe, with two thinner stripes of

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[1] Grubb (1).

[2] Cf. Nordenskiöld (13), plate 13.

286 the same colour on either side. Beside these six groups of stripes, there
291 is a thin, greyish white stripe running along each of the longer edges of
the mantle. The garment is woven in one piece. In the centre of the

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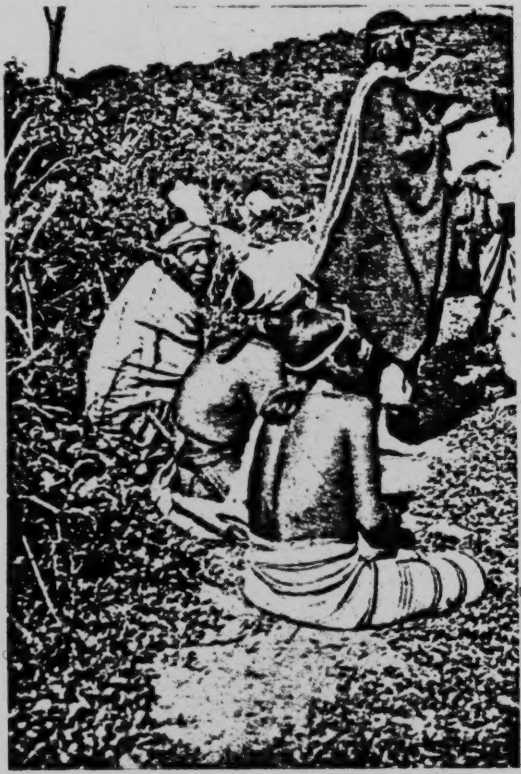

Fig. 32. Choroti Indians. Gran Chaco. Bolivia. Photo. E. v. R.

mantle there are figures sewn with reddish brown, woollen-yarn (fig. 34), probably property marks.[1]

291 When engaged in work or pastimes, the Choroti men usually take off their mantles. In »our» Choroti village we therefore always saw a large proportion of the men going about practically naked (figs. 16, 18 and 171).

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[1] Cf. Nordenskiöld (13), p. 32.

286 291 Among the Choroti, I have only seen a very few individuals wearing the poncho, and the only specimen of this garment I succeeded in obtaining belonged to a half-grown youth. This poncho (fig. 35) consists of a woollen fabric, 160 cm long and 61 cm broad, in the middle of which there is a slit, 26.5 cm in length. The weaving consists of two-threaded, tightly spun yarn of greyish white (the natural colour of the wool) and red (now faded). Its ornamental design is formed by three broad, decorated strips, woven on double warp, so that on one side the pattern shows greyish white on red ground, and on the other side red, on greyish white ground. The fabric between these strips is rep, with the woof of greyish white yarn. Whether this poncho is of Choroti weaving, one cannot be certain. Possibly it has been obtained by Choroti from their Ashluslay neighbours, seeing that similar garments are not uncommon among the latter.[1]

[531]

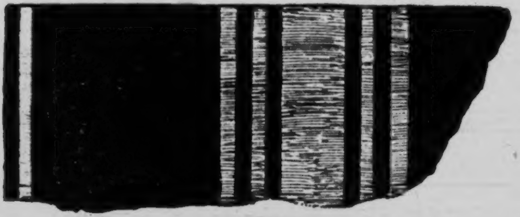

Fig. 33. Corner of man's mantle which is 204 cm long and 185 cm wide, of brownish-red wool, woven with groups of greyish-yellow stripes. Gran Chaco. Bolivia. ¹/₄. Riksm. 03. 3. 1.

[531 171 422]

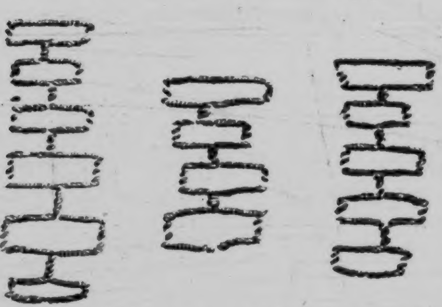

Fig. 34. Ornaments (probably property marks), placed in the middle of the mantle, a detail of which is seen in fig. 33. ¹/₂.

In the huts of the Choroti 292 714 I frequently came across a kind of thick shirts, knitted from tightly spun caraguatá-fibre threads (fig. 36), but I never saw them in use. In reply to my questions as to the reason for this, I was told that these garments are chiefly worn in fighting, when they are used as a protection against [171] arrows. Caraguatá shirts are also used by the Ashluslay and the Mataco,[2] but in the literature on those Indians I have found no reference as to their being used as a protection against arrows. The Chiriguano, however,

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[1] Nordenskiöld (11), pp. 111 and 112.

[2] Nordenskiöld (11), p. 107.

as well as the Chaco tribes of the Guaikurú group, like the Choroti, 292
wear these garments as war shirts.[1] In all the tribes just referred to 714
(and the Ashluslay and Mataco as well), such shirts are worn exclusively by the men. The Caraguatá[a] shirt here reproduced is knitted very tightly and closely (fig. 37), and, although its length is only 56 cm, exclusive of the shoulder straps, it weighs as much as 1.4 kg. The stripes that are [531] worked in by way of ornamentation, have been formed by using string dyed black, and string dyed brown, alternately, in knitting. The parts that are between the stripes consist of undyed fibre. At the bottom edge of the shirt, small pieces of red and yellowish brown cloth have been tacked on; these originate from the whites.

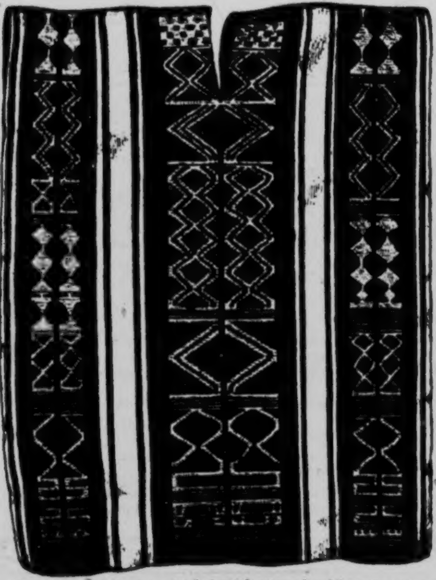

Fig. 35. Child's poncho (a boy's) of wool, with woven ornaments. Ground colour brownish-red; ornament yellowish-grey. Choroti (probably manufactured among some other tribe). Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 4.

[439]

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These mail shirts of caraguatá-fibre string are exceedingly well manufactured, and undoubtedly form a good protection against the Chaco Indians' arrows, which are usually wooden-pointed. Arrows with rod-shaped, iron wire points, or with leaf-like, edged, iron heads, on the other hand, would probably pierce even the thickest and most closely knitted caraguatá shirt. The shoulder straps in these mail shirts are knitted considerably thinner and less closely than the rest of the shirt, and this is only natural, as the function of the straps is to suspend the shirt, and not to give protection against arrows. Besides, they could only be hit by arrows dipping at an angle from above.

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[1] Krickeberg (I), p. 131.

[a] [C should be lower case.—Analyst]

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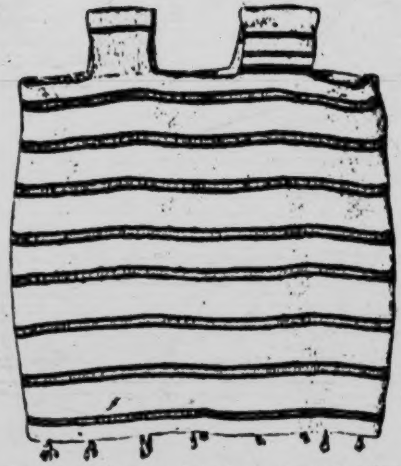

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Fig. 36. Mail shirt, knitted of caraguatá string. Worn principally as a protection against arrows. Choroti. Gran Chaco. Bolivia. 1/8. Riksm. 03. 3. 383.

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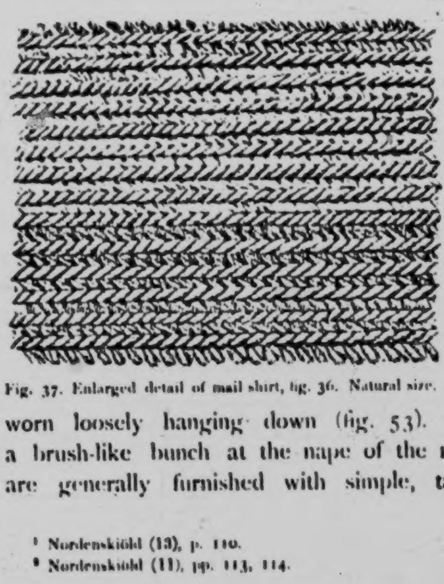

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Fig. 37. Enlarged detail of mail shirt, fig. 36. Natural size.

It is worthy of note that the Choroti also manufacture another protective garment out of caraguatá, namely a sort of stockings. This footgear is put on for wading (in fishing), as a protection against the teeth of the terribly sharp-biting palometa fish.[1]

To protect the legs from spiny plants, I have seen Choroti using a kind of long deerskin leggings, laced on with leather straps. The legging here reproduced in fig. 38, which has a height of 71 cm, reached well above the knee of its wearer. Some of the Choroti make use of sandals,[2] but I have myself never seen them worn by these Indians.

The men generally wear their hair of a medium length i. e., down to the shoulders, or the shoulder blades (figs. 16—18, 39 and 83) — but I have also seen Choroti with hair so long as almost to reach the waist. The hair is usually tied round with a woollen frontlet (fig. 39), or a frontlet of palm leaves (fig. 24), or birdskin (fig. 17), but it may also be worn loosely hanging down (fig. 53). Frequently the hair is tied into a brush-like bunch at the nape of the neck (fig. 39). Woollen frontlets are generally furnished with simple, tasteful, ornamentation (figs. 39

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[1] Nordenskiöld (13), p. 110.

[2] Nordenskiöld (11), pp. 113, 114.

and 40). Miss Agnes Branting, who has kindly examined the textiles 291
here reproduced, found the frontlet in fig. 40 especially interesting, as 302
similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

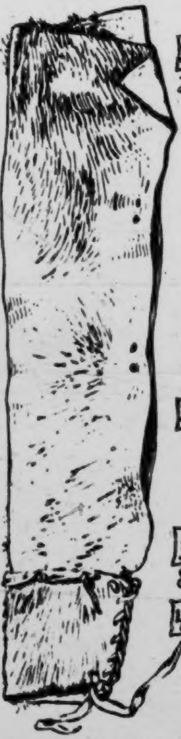

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Fig. 38. Legging, of deer-skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 383.

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail-shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen-yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin straps, so as not to slip easily off the head (fig. 44).

At dances and other festive occasions, the men are fond of wearing 292
particularly handsome, broad frontlets or head ornaments of stiff or downy 302

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[1] Compare with this a method of hand weaving described from the Choroti by Erland Nordenskiöld. Nordenskiöld (13), p. 111.

292 feathers, tied inside a woven or plaited fillet, usually no more than a
302 centimetre wide, of coarse caraguatá, or woollen-yarn (fig. 45).

And it is also principally at dances that the men of the Choroti wear a sort of knitted skullcaps of woollen-yarn, net-like, and with a chin-strap.

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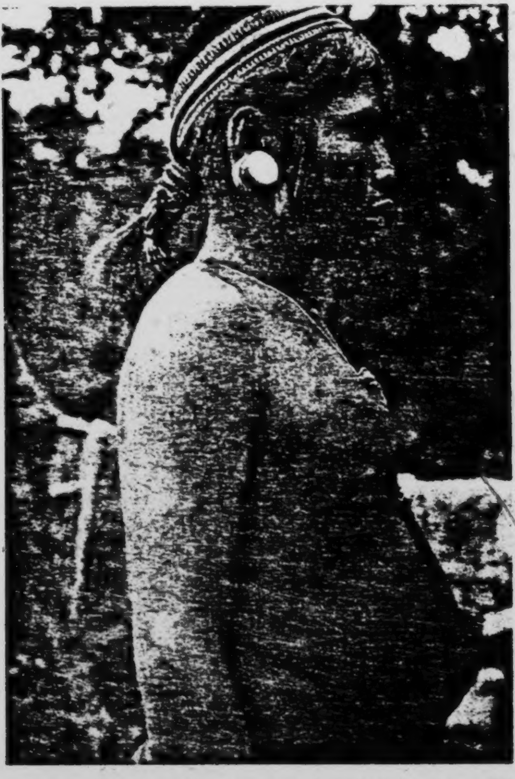


Fig. 39. A man with a woven frontlet of wool (greyish-white and brownish-black), and ear-lobe discs of wood. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[531] These hair-nets are often studded with snail-shell spangles (fig. 46), or the chin straps decorated with down (fig. 47). With the magic character of these and other ornaments from the Chorotis,[1] I shall deal in a later chapter.

[1] [should be Choroti: — analyst]

To the frontlets are affixed one or more feathers (figs. 32, 16— 292
18, 24, 30 and others). These are obtained from many different 302
birds, ranging from ostrich and 237
white heron to domestic fowls. The feathers are often nicked,

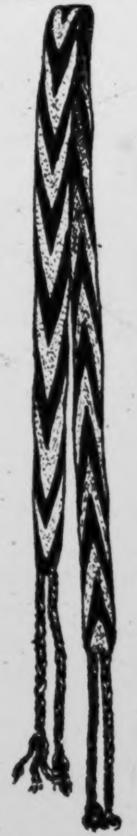


Fig. 40. Frontlet, of wool, with angular ornament in brownish-black and greyish-white. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 9.

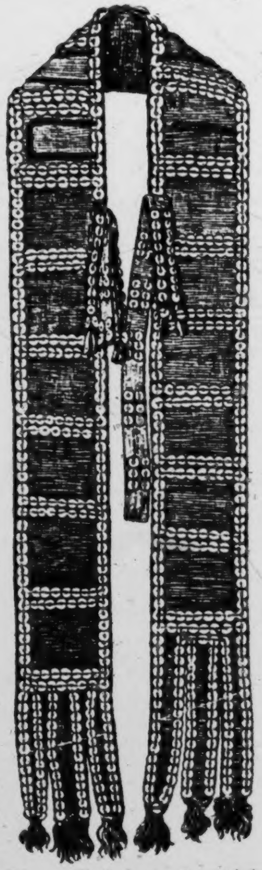
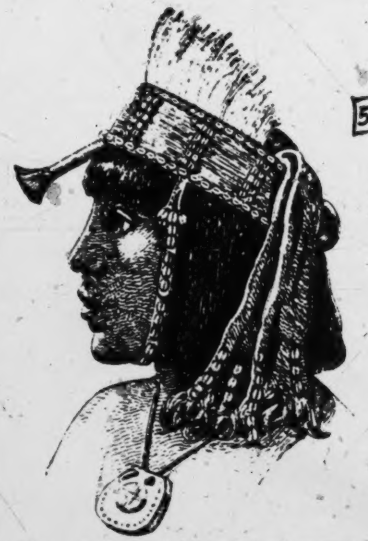
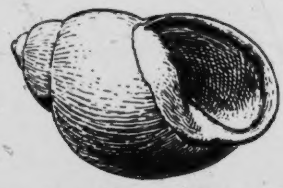


Fig. 41. Head ornament, consisting of a red, woollen, frontlet, 7 cm wide, with snail-shell spangles sewn on, and, in front, beset with turquoise-blue glass beads. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 10. 3. 134.



[531]

Fig: 42. A Lengua Indian with head ornament, »scalp lock» and whistle (the latter hanging round the neck on a string). From Hawtrey.[1]



[825]

Fig. 43. Borus oblongus, a white land snail, common in the Chaco. From its shell the Indians make small spangles, with which they adorn themselves. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 47.

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[1] Hawtrey (1), p. 282, fig. 2.

237 and tied with woollen-yarn on to a small stick or cane splinter (fig. 48), 292 for sticking into the fillet of the frontlet. The Indians take very great 302 care of their feather ornaments, and the easily damaged ostrich plumes [415] (see front-page plate and fig. 49) are kept encased in bamboo. The plume-case reproduced in fig. 50 consists of a piece of bamboo, 50 cm long and 2.5 cm wide. At the upper joint there is a hole, 3.2 cm long and 1.2 cm wide, through which the partition wall has been removed. The bamboo chip cut out in making the hole near the bottom end, is tied over the hole with a thin strip of bast; whereas the upper hole is without such a lid. The lower hole differs from the upper, in that its edges, as well as the edges of the lid, are painted red. I presume that neither of these holes has been made exclusively for the purpose of facilitating the removal of the wall within the joints, but that they have also served to make easier the taking out of the feathers from the case. The painting red of the holes and lid edges has, as I shall show further on, probably been done with magic intent, for the safeguarding of the plumes.

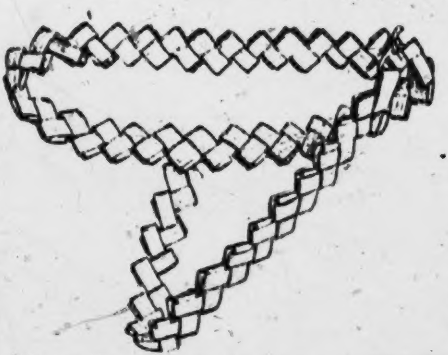

Fig. 44. Frontlet of palm leaf, with chin strap. Choroti. Gran Chaco. Bolivia. 1/3. Rik-m. 03. 3. 14.

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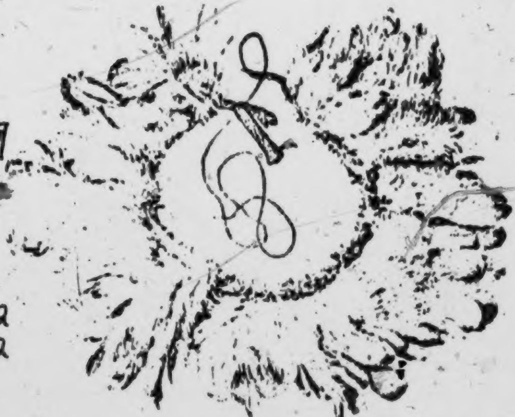

Fig. 45. »State» frontlet, made of white and pink feathers and down from the pink spoonbill. Choroti. Gran Chaco. Bolivia. 1/3. Rik-m. 03. 3. 15.

The curious object seen in fig. 51 is, it has been stated, meant to be used as an ornament at dances; it is made out of the leaf of a fan palm (Copernicia australis). It seems to me,

however, that this object, on account of its weight and shape, would be 292
rather unsuitable for a head ornament. At an attempt at fixing this bunch 302
in a band tied round my forehead, the cluster overbalanced at the very first sharp movement. With some Indians (e. g., the Pueblo Indians of New Mexico) it is the custom at certain dances to hold branches in the hands,[1] and the Mataco, on occasions, dance round two men who are each holding a bunch of sugar cane, resting it on the ground. In this latter case the dance in performed in order to hasten the ripening of the sugar cane.[2] The fan palm being of great importance in the food-getting of the Choroti, it is not inconceivable that the palm-leaf bunch here mentioned has been used at some magic dance, held with a view to [778
obtaining an increased supply of palms. That palms are sacred trees, is 824]
a universal idea with the Indians,[3] a fact that enhances the possibility of this cluster having had some magical purpose. It may perhaps appear
strange that I did not, without further ado, accept the statement of the [124]

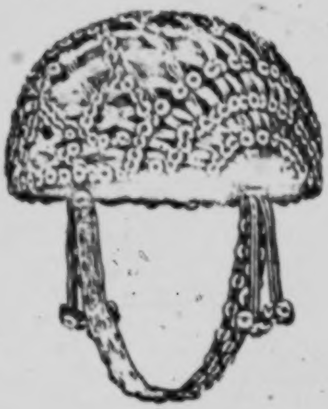

Fig. 46. Hair net, with chin strap of red, woollen yarn. The technique in the knitting work resembles what is known as macramé lace. Hair net as well as chin strap decorated with small shell spangles. Choroti, Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 15.

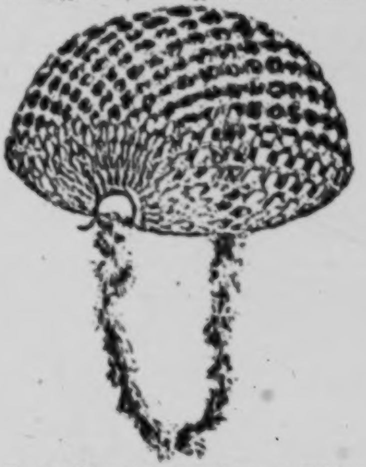

Fig. 47. Hair net of red woollen yarn. Knitting technique resembling that of macramé. In the chin strap, which consists of grey woollen yarn, small downy feathers are worked in. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 5.

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[1] Donaldson (1), plates facing pp. 117 and 119.
[2] Karsten (1), p. 80.
[3] Karsten (4), p. 126.

292 cluster being merely a head ornament, but the Chaco Indians often give
302 information that is purposely incorrect, and hence one cannot always rely
[124] upon their explanations.[1] A quaint head ornament, met with among the Choroti, consists of a cross, about 1 dm high, constructed of feathers, thread, and a wooden stick. These crosses, worn stuck into the frontlet, are very similar to a kind of ornaments, probably symbolic or magic, that are occasionally found together with ancient Peruvian mummies.[2]

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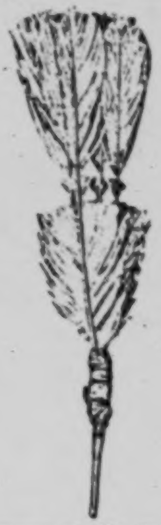

Fig. 48. Ornament of white feathers, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 26.

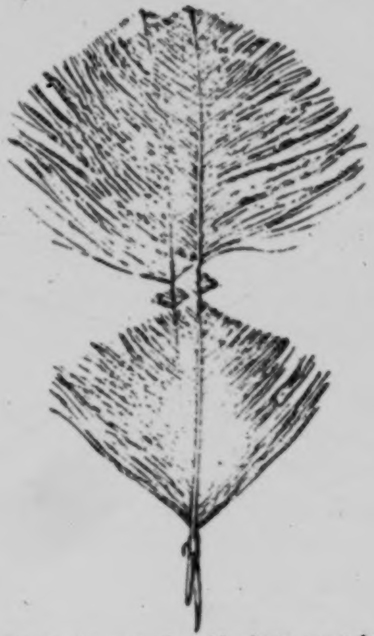

Fig. 49. Ornament of ostrich plumes, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 20.

302 Occasionally the Choroti, and also other Chaco Indians, gather a lock
727 of their front hair into a tuft, tying it round with yarn or narrow woollen tape, so as to make it look like a brush, or broom. Sometimes they make a similar little brush from false hair, and wear it pushed in under the frontlet, over the forehead, so that it points downwards. The false-hair brush here depicted (fig. 52) possessed special value to the Choroti

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[1] As to the lying disposition of the Indians of the Chaco, see for example Nordenskiöld (13), p. 34.
[2] Nordenskiöld (11), pp. 138—140.

who was wearing it, for, according to his statement, this ornament 302
originally belonged to an enemy killed by him (Cf. the »scalp lock» on 727
the Indian in fig. 42).

On the Spaniards' first coming to the Inca kingdom, there was, natur- 101
ally, in that country much that aroused their great astonishment. Among other things, the strangers found it especially remarkable that Peruvian men of noble birth were wearing immense, often metal-mounted wooden discs, or hanging ornaments, in their pierced ear-lobes, which were distended to a monstrous size. This custom occasioned the Spaniards to give the Peruvian nobles the nickname of »orejones» — which might be

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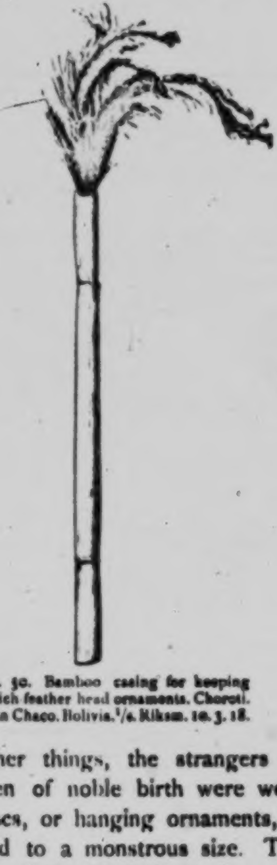


Fig. 50. Bamboo casing for keeping ostrich feather head ornaments. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 10. 3. 18.

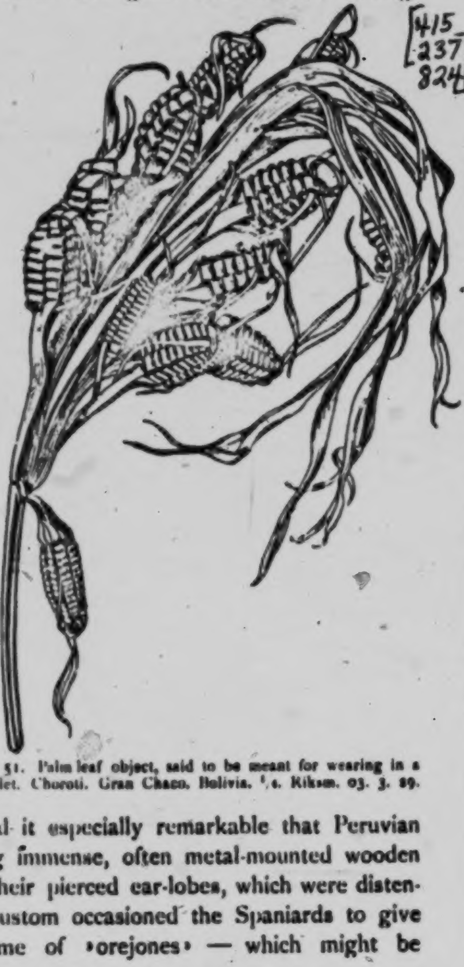
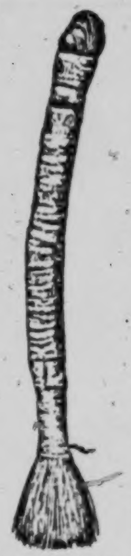


Fig. 51. Palm leaf object, said to be meant for wearing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 89.

101 translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

171 304 301 In our days, the practice of wearing ear-lobe discs is met with among a number of tribes distributed over the whole of that part of South America which lies to the north of the tropic of Capricorn.[1] On the Chaco, ear-lobe discs are extensively worn by the Choroti, Lengua[2] and Ashluslay, and are also found among some of the Mataco and Toba Indians.[3] Also in North America the custom of wearing ear-lobe discs, or blocks, appears to be very ancient.[4] The wearing of this kind of ear discs is, however, not limited to America, but is also found, among other places, in Central Africa.[5]

[302] 301 304 Among the Choroti, all the men and youths have their ear-lobes pierced, and in the holes they wear discs (see for instance figs. 17, 30, 39, 53). These discs were almost always used for everyday wear, and invariably on state occasions. It very seldom happened that I saw a Choroti man without his ear-discs. Latterly, the practice of wearing ear-lobe discs has, in the same way as other old customs once prevalent among the Choroti, become less common, and nowadays it seems that the Choroti, for everyday use at least, often appear without their discs. The piercing of the ear-lobes is performed with a bone awl, or cactus spine, already during boyhood, but I did not see any boys under puberty age wearing discs. Neither is there anything in the literature indicating that Choroti boys put on ear discs before that age.[6]



[178] [882] Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti. Gran Chaco. Bolivia. $^{1}/_{3}$ s. Riksm. 03. 3. 65.

But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

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[1] Nordenskiöld (11), map 18.

[2] Koch (1), p. 218, and Hawtrey (1), p. 283.

[3] Nordenskiöld (11), p. 122.

[4] See for instance Moore (2), p. 282.

[5] von Rosen (4), plate 7, fig. A_2 and von Rosen (7), p. 124.

[114] [6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (13), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

sticks, in the holes that have been made, in order to keep them from 301
closing up. After the healing of the wound, these plugs are, however 304
taken out, and it is only when the boys have reached the age of puberty,
that the ear-lobe is gradually distended by means of plugging with a 301
succession of ear blocks, or ear-lobe discs, of increasing sizes. Only youths 304
of mature age, and men, are allowed to take part in certain religious 789
dances. At the performance of these, it is of especial importance to be [884]
protected from evil spirits. According to the belief of the Indians, ear
discs afford them such protection,[1] and it is therefore possible that this is
the reason why the boys begin wearing ear discs only after having attained
puberty. For reasons which I shall explain below, I consider that the
*piercing of the ear-lobes by no means always implies wearing of ear-lobe
discs.* Among the Choroti, the ears of little girls are often pierced in the [562]
same way as in the case of the boys[2] (see the woman with pierced ear-
lobes in fig. 22), *but never once did I see a Choroti woman wearing discs
in her ears,* nor is there in the literature on these Indians any photographic evidence to be found, as far as I know, of Choroti women wearing ear discs. Further; neither Baron Erland Nordenskiöld,[3] nor Doctor Rafael Karsten, both explorers who have lived for a long time among the Choroti, are now able to recollect with any certainty having seen any Choroti woman wearing ear discs.

To cause bleeding by perforating the skin, has among the Chorotis,[a]
— as among other tribes in the Chaco — a magic significance, and the 304
possession of many scars is considered a great advantage. Thus, for 755
instance, the Chaco Indians will with ostentation and satisfaction show even scars from bites of the palometa fish. When the Choroti believe themselves possessed by some evil spirit, they prick themselves with sharp-pointed bone awls, and imagine that the spirit leaves the body with the outflowing blood. About this custom, Karsten writes: »If the arm fails or trembles in pulling the bow, its weakness is, according to the belief of the Chorotis, due to the presence of a mohsek in the blood and they
think that the evil demon will leave the body with the blood drawn. The [751]
scars left by the cuts are kept up with care and shown with satisfaction,

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[1] Karsten (4), p. 124, and Grubb (1), p. 72.

[2] Nordenskiöld observed in a Choroti village that *all* the girls had their ears pierced. According to a letter of his, dated 13 May, 1921. Rockelstad collection of manuscripts, volume 1921, letter N.

[3] According to letter referred to in footnote 2.

[a] [should be Choroti. - Analyst]

Ci
304 almost with pride. *Evidently it is thought that the very scars afterwards
755 act as a sort of charm against the spirits.*»[1]
751

If scars left by wounds are considered to possess desirable, magical properties, it would easily be supposed that perforations that have been kept open must possess the same properties in a greatly enhanced degree.
Co
881 Among the Chiriguano, neighbours of the Choroti, the actual piercing of
304 the lower lip constituted the most important of the ceremonial acts per-
171 formed on the boys on their having attained puberty, and among the Chané — whose culture is akin to that of the Chiriguano — not only was the lower lip pierced on this occasion, but the boys were also given other wounds on the body.[2]

Ci
304 From what I have adduced above, it will therefore be seen that,
789 according to the belief of the Indians, *the making of punctures or perforations on the body, has in itself magic effects, and, consequently, that these magic effects are not believed to arise with the fixing of some ornamental object of magical character — e. g., a tembeta, or an ear disc — into the perforation.*

Ci
304 This being so, here, in my opinion, lies the explanation of the fact
789 that Choroti girls sometimes have pierced ear-lobes, although it has never
562 *with certainty* been shown that they ever wear ear discs. On the other hand, from reasons I shall present below, it is *probable* that old Choroti women, with distended ear-lobes, *exceptionally* do wear ear discs.

I myself, as well as other investigators of the Chaco peoples, have seen elderly women among the Choroti with holes in their ears so large that one was forced to suppose that the lobes had been stretched in some way or other. Such stretching, however, may not *necessarily* be due to the wearing of ear blocks, but *may* have been produced by manual manipulation. That, by such means, perfectly monstrous distension of the soft parts of the body can very well be brought about, is proved by, among other things, the practice of the Hottentot women of lengthening out — merely by frequent pulling — the labia minora into an enormous size.[3] A similar stretching of the hole in the ear-lobe might, from the Indians' point of view, have for its object the increasing, proportionately to its size, the magic properties of the hole. Among the Incas, the size

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[1] Karsten (4), p. 157. Italics by von Rosen.

[2] Karsten (4), p. 200.

[3] von Luschan (1), p. 378.

of the hole in the ear-lobe was probably an important matter, a point 304
noticed also by Karsten, who writes on this subject: »Of all marks of 789
honour which they received at this initiation, *the holes* in the ear-lobes 562
were the most important. The Inca himself pierced the ears of the young princes with big golden pins, which afterwards were left in the wounds *in order to make the holes larger.*»[1]

For reasons which here follow, I can, however, quite well imagine that exceptions might be made from the rule that ear discs may not be worn by women. Karsten states his observation that women, as a rule, take no part in religious ceremonies, incantations or dances, but adds: »There are exceptions to this rule, and just as elderly women, who have been properly initiated, may perform certain religious ceremonies of their own, so may they also occasionally take an active part in certain religious dances.»[2]

Bearing in mind the fact that ornaments of magical character have their specific uses at dances and other religious ceremonies, and also that ear blocks, as we have seen, are looked upon by the Choroti Indians as means of protection against evil spirits, I do not find it improbable that *elderly women, who have been initiated in magic ritual, on certain occasions may wish to strengthen their power to resist evil spirits by enlarging, as do the men, the holes in their ear lobes by putting in blocks, or discs.*[3]

Among another Chaco tribe, the Toba Takshik, Dr Lehmann-Nitsche 171
has observed that a certain distinctive attribute, which as a rule is exclusively meant for the one sex, may, in rare and exceptional cases, be assumed by the other. Lehmann-Nitsche tells of a man who had been given the tattooing especially distinguishing women, but points out that this must have been an extremely rare case, seeing that it greatly astonished even the interpreter, and suggests the possibility of the man not being considered an »homme normal».[4] It is noteworthy that the tattooing
in question, described and reproduced by Lehmann-Nitsche, is practically [304]
identical with a tattooing design that adorned a Choroti *man* (see fig. 66).

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[1] Karsten (4), p. 136. Italics by von Rosen.

[2] Karsten (1), p. 2.

[3] Fig. 30 in »Indianlif» (Nordenskiöld (18) shows a redoubtable old Choroti-woman, who had executed the tattooing Nordenskiöld had done on himself. This old woman's ear-lobes are enormously distended.

[4] Lehmann-Nitsche (8), pp. 15 and 16.

171 Among the Ashluslay, who are neighbours of the Choroti, *only the men wear ear-lobe discs*, which probably is also the case among the Toba.[1]

As I have pointed out in the foregoing, in their culture the Lengua are very closely related to the Choroti, and therefore it would be of especial interest to obtain exact knowledge as to how the practice of wearing ear-lobe discs is applied among the first-mentioned tribe. In the literature on the Lengua we find a definite statement by the distinguished explorer, Koch-Grünberg, to the effect that among the Lengua it is *exclusively* the men who make use of ear discs,[2] whilst the equally prominent Chaco expert, Grubb, says that it is *chiefly* the men who wear these ornaments.[3] Grubb has published the picture of a woman who has distended holes in her ears, but is *without discs*.[4]

From the statements made by Koch-Grünberg and Grubb, I think it probable that among the Lengua, as among the Choroti, it is the rule that ear discs are worn exclusively by the men, but that exceptions may occur. That such exceptions must be of extreme rarity is as obvious as could be desired, from the fact that Koch-Grünberg never saw a single Lengua woman wearing ear discs.

301
322 Among the Choroti, the ear discs are made of wood, cane, gourd shell or palm leaves. In the wooden discs, the front face is flat and often metal-mounted (figs. 53 and 54), or has ornament burned in (fig. 55); the rear face is usually convex and, as a rule, provided with a hole bored or burned into it, sometimes forming a perforation right through the disc. Occasionally the cylindrical surface of the discs is decorated with ornament burned in.

301 The long necklaces of snail-shell spangles, like most other ornaments among the Choroti, are worn exclusively by men. These necklaces usually have a length of several metres, and rank as highly valued possessions; it is exceedingly difficult to obtain such a treasure from a Choroti by barter. The most elegant of the men often wear several necklaces of this

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[1] Nordenskiöld (13), p. 68.

[2] »Diese Pflöcke sind *ausschliesslich eine Zierde des männlichen Geschlechts; die Frauen tragen sie nie.* Das erste Anlegen des Pflockes ist eine Art religiöser Feier, bei der sie nicht gern einen Fremden dulden.« Koch (1), p. 218. Italics by von Rosen.

[3] »Wooden ear-discs are worn as ornaments, chiefly by the men.« Grubb (1), p. 72. Hawtrey, who has also written about the Lengua, does not say whether only the men wear ear discs, but he has described these objects in connexion with other objects of a more or less magic character, which *as a rule* are worn by men. Hawtrey (1), p. 283.

[4] Grubb (1), the top picture on the plate behind page 72.

[text continues on p. 69]

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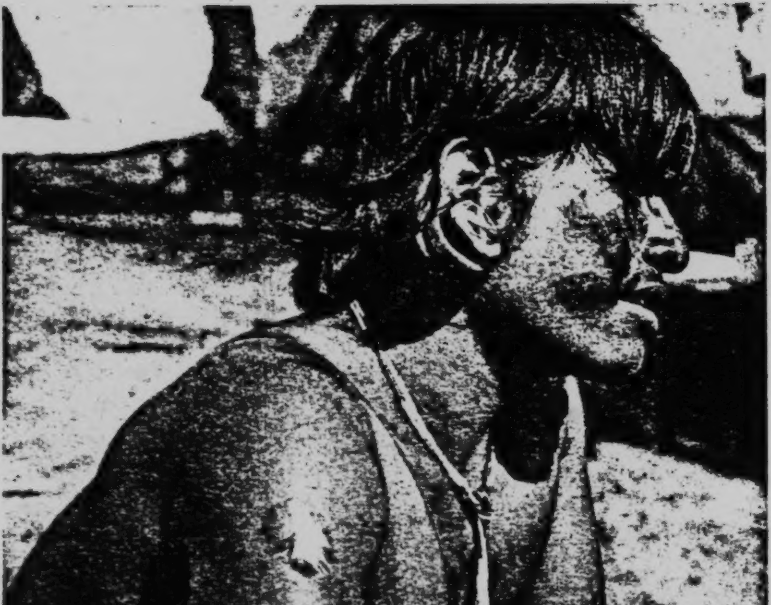


Fig. 53. A man with ear-lobe discs, set with pieces of tin. On his right upper arm is seen the scar from the terrible bite of a palometa fish (Serrosalmo sp.). Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 68 is blank]

kind, the total length of which may amount to as much as 15 metres. 301
Thus, for instance, the ornamental outfit seen in fig. 56 consists of two necklaces, respectively 4.39 and 4.61 metres long.

Necklaces of mussel- or snail-shells of the shape shown in fig. 57 and 301
58 are also popular. The necklace, fig. 57, consists of 15 spangles made 321
from shells of the common river mussel of the Chaco. The spangles, which are only slightly more than one millimetre thick, are chipped or ground into more or less circular shape, and in, or near, their centre have a perforation right through. Through these holes a string is threaded, so as to keep the spangles fixed in the way shown in the picture. On the reverse sides the spangles retain the rough, greenish brown surface of the mussel-shell; their front sides display the mother-of-pearl lustre peculiar to the inner side of mussel-shells. In each spangle the front face is pitted with 4 to 5 shallow borings, which either have a magical significance, or may be only designed to enhance the decorativeness of the necklace.

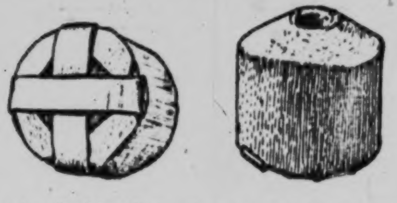
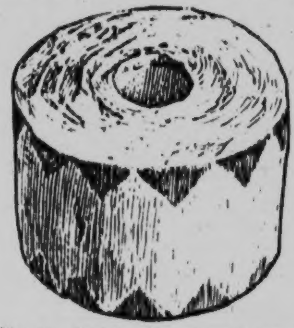


Fig. 54. Ear-lobe discs, of wood with tin mountings. Choroti. Gran Chaco. Bolivia. $^{2}/_{3}$. Riksm. 03. 3. 57.



[531]

Fig. 55. Ear-lobe disc of wood, bored right through. On its cylindrical surface ornament has been burned in. Choroti. Gran Chaco. Bolivia. $^{1}/_{1}$. Riksm. 03. 3. 56.

The tags on the necklace shown in fig. 58 consist of rectangular slabs of mussel- or snail-shells. These slabs, which have been very neatly chipped into shape, possess on their front sides a beautiful mother-of-pearl lustre, although they are not of such high opalescence as the spangles in the necklace, fig. 57. The front side of each tag has 3 to 5 shallow borings, the hinder side is bone white. Necklaces of this kind, with quadrilateral tags of mussel- or snail-shell, are specially characteristic of the Chaco.[1]

The Choroti have acquired glass beads from the Europeans, but such 301 439
beads are far less valued than spangles or the thin plates of snail- or mussel-shells.

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[1] Krickeberg (I), p. 132.

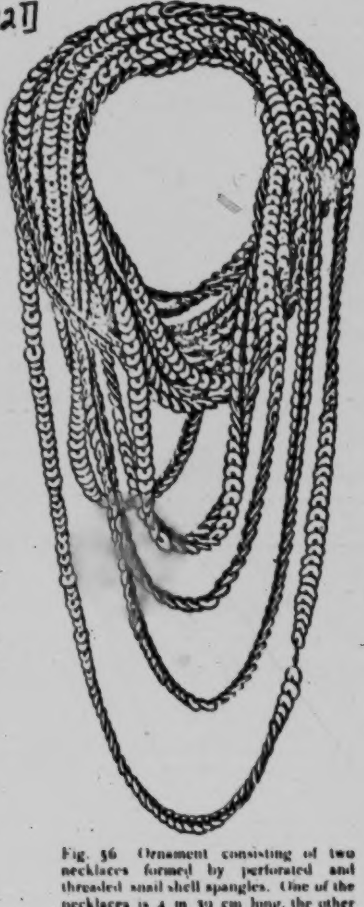

Fig. 56 Ornament consisting of two necklaces formed by perforated and threaded snail shell spangles. One of the necklaces is 4 m 39 cm long, the other 4 m 61 cm. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 45 & 46.

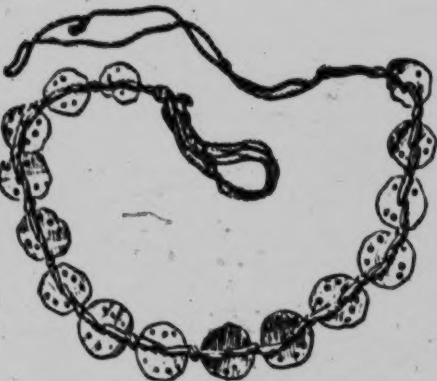

Fig. 57. Necklace of mussel-shell discs. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 49.

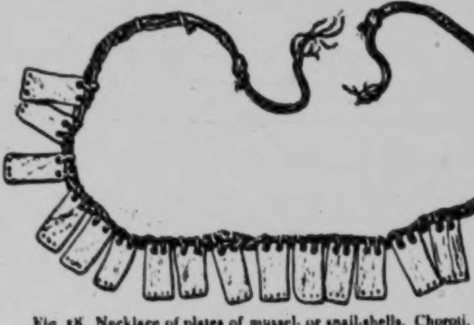

Fig. 58. Necklace of plates of mussel- or snail-shells. Choroti. Gran Chaco. Bolivia. $^1/_2$. Riksm. 03. 3. 48.

mussel shells. Necklaces worn by the women (figs. 61 and 62) as a rule consist of glass beads, but I saw men, too, wearing this kind of ornament (figs. 17 and 53).

The men adorned themselves with armlets, generally consisting of a narrow strip of birdskin, with the down, mostly white, left on (fig. 151). But armlets made out of white-haired oxhide, or palm leaf (fig. 24), were also of common occurrence. Another kind of armlet, which I less frequently saw, consisted of a narrow woollen-band, with snail-shell spangles sewn on (fig. 171, the man on the left in the foreground).

Round the ankles the men often wear birdskin bands, in appearance similar to the armlets (fig. 30, the second man from the left). There may also be seen anklets made up from ostrich feathers lashed on to a thickish cord of caraguatá or wool (fig. 59). According to what several Choroti Indians told me, anklets are worn not only as ornaments, but also as a protection against snakebite. If a man wearing feathered anklets should happen to step upon, or close to, a snake, the latter, my informants assured me, would almost for certain first strike at the showy feathers. This warns the man of his danger, and he will generally have time to jump aside before the snake is ready to strike again. This belief is also found among the Lengua.[1] 301

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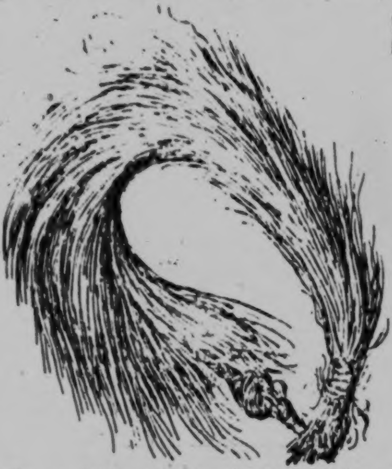

Fig. 59. Anklet, made of ostrich feathers tied round a thickish piece of string. Choroti, Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 34. a.

The articles of dress, as well as the ornamental objects,[2] that I have described in this chapter, are, as I have said, only such things as appertain to the stronger sex; but one ornament, however, which to an equal extent is worn by men as well as women, is the finger ring made of lizard skin (fig. 60). These rings are made in a rather original manner. Anybody wanting rings, whether for himself or for giving away, kills a lizard. The part of the animals tail that in thickness about equals the size of a human finger, is cut, according to its segments, into slices from 2 to 5 mm wide, and then the inside of the sections is removed. The rings are now ready for use, and it only remains to try them on for the best fit. As we know, the tail of a lizard tapers towards the tip, and this makes the rings differ somewhat in size, so that it is no difficult matter to find rings to fit any sizes in fingers.

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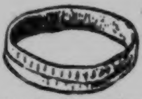

Fig. 60. Finger ring of lizard skin. Choroti. Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 35.

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[1] Grubb (1), p. 72.

[2] Many of these ornaments have a magical character. In Chap. VI I shall deal with this point more fully.

291 [177] The women of the Choroti, especially the younger ones, have very generally adopted the woman's garment common among the Chiriguano, which is called »tipoy» and consists of a cloak-like covering hanging from the shoulders, where it is secured with cactus spines (fig. 62). The cloth forming the material of these tipoys, is an acquisition by the Choroti from the whites. I saw Choroti girls that had not troubled to sew their tipoys together, but thought it sufficient to pin the edges together with cactus spines down one side. Occasionally the girls wore the tipoy from the hips, as seen in fig. 61. The original garb of the Choroti women consists of a deer skin, or a length of home-woven woollen cloth wrapped round the hips (fig. 21), leaving bare the upper part of the body. Nowadays one only sees elderly women dressed in this way.

301 Contrasted with the men, the women have very few, and very unpretentious, ornaments. The girls wear a necklace or two, made from glass beads or porcelain buttons (fig. 61 and 62), and lizard-skin finger rings. Now and again one may see a woman with armlets, or finger rings, consisting of threaded glass beads, pieces of leather or palm leaf (fig. 62, the girl on the extreme right, and fig. 152).

302 304 The practice of decorating the face by tattooing and painting is common to both sexes. The men, however, are not always tattooed, which, on the other hand, is the case with the women. Painting of the face, which may safely be assumed to possess magic significance,[1] is performed by men as well as women on all important occasions.

304 Whilst it is the prerogative of the men to adorn themselves with the showier ornaments, it is generally the women who display the more abundant tattooing (cf. figs. 63—66 and 71—76). The tattoo marks that a fully grown Choroti woman wears on her face, have not been worked on her all at the same time, but during different phases of her life as she grows up. According to Nordenskiöld, the Choroti begin tattooing their children already when the latter have reached an age of from 5 to 7 years,[2] and thenceforth various designs are added as the years pass. As a rule, the men are not tattooed, or they may have just a few tattoo marks (fig. 63), and it is exceptional to see Choroti men as profusely tattooed as the men in figs. 64—66.[3] As I have already pointed

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[1] Se Chap. XII.

[2] Nordenskiöld (13), p. 68.

[3] Compare, with this for instance, Lehmann-Nitsche (1), pp. 80 and 81, and Nordenskiöld (13), pp. 69 and 70.

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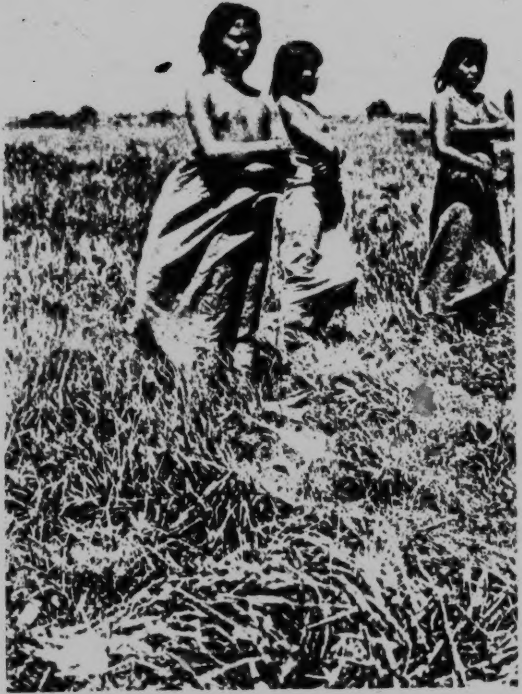


Fig. 61. Choroti girls, wearing »tipoys» from the hips. The girl farthest on the left is wearing a necklace of porcelain buttons. The other necklaces consist of glass beads. Gran Chaco. Bolivia. Photo. E. v. R.

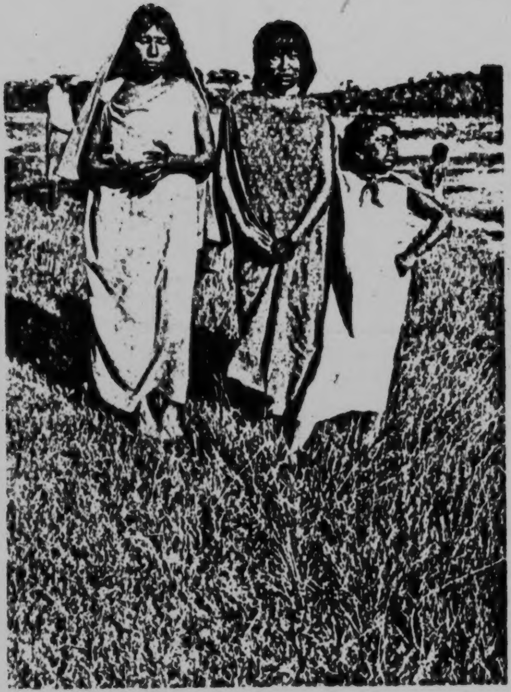


Fig. 62. Choroti girls with »tipoys» fastened over the shoulders with cactus spines. The necklaces are of glass beads. Gran Chaco, Bolivia. Photo. E. v. R.

out, the tattooing reproduced in the last-mentioned diagram is almost identical with the face-tattooing on a Takshik man reproduced by Lehmann-Nitsche.[1] 304

Only grown women are plentifully tattooed, and a tattooing like the one reproduced in fig. 73 is *never found on any woman under marriageable age.* Just as with us the girls are not at once given long skirts to wear, but only by degrees, so the girls of the Choroti with the passing of the years are given additional tattooing, until, having grown into mature women, their face-ornamentation is complete.

With many Chaco tribes, tattooing is probably as a rule a puberty sign of a magic character, especially set apart for the women. Among the Ashluslay, only the women are tattooed,[2] and, according to Karsten, the women of the Ashluslay on the lower reaches of the Pilcomayo are tattooed as they enter upon puberty.[3] Among the Toba, only the women are as a rule tattooed.[4] [171]

The tattooing is generally performed with cactus spines (fig. 77), but exceedingly sharp-pointed bone awls (figs. 81 and 88, c) are also used. The latter are often wound with woollen yarn, leaving only a few millimetres from the point, so as not to penetrate unnecessarily deep into the skin (figs. 185 and 186). These wool-wound bone awls are, however, primarily intended for being used in a peculiar kind of blood-letting, to which I shall again refer in connexion with the magic practices of the Choroti. The most practical way in which to perform tattooing is undoubtedly by using a small bunch of Cactus[A] spines, for then several punctures result from each stab. On the only occasion when I saw tattooing being performed, the puncturing was made with bone awls, it is true;[6] but that may possibly have been owing to there being no cactus spines handy. Other investigators, who have spent longer time than myself among the Choroti, only mention cactus spines as puncturing instruments in tattooing.

Tattooing is performed in the following way: With saliva strongly mixed with soot, the tattooing artist (often an elderly woman), by means of a small stick outlines the desired pattern on the face of the person who is to be tattooed, whereupon the tattooer stabs at the sketched

[1] Lehmann-Nitsche (3), p. 16.

[2] According to Nordenskiöld, the Ashluslay girls receive their first tattoo marks at the age of about 5 to 7 years. Nordenskiöld (13), p. 68.

[3] Karsten (4), p. 24. Cfr. also what Karsten says about tattooing, pp. 220—222.

[4] Lehmann-Nitsche (3), p. 16.

[6] E. Rosen. II.

A [should be lower case. - Analyst]

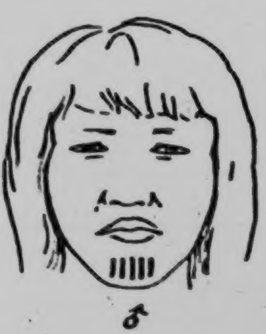


Fig. 63.

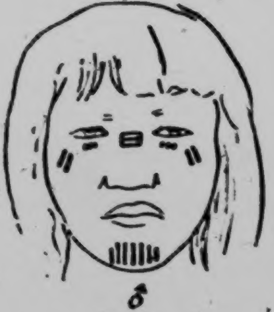


Fig. 64.

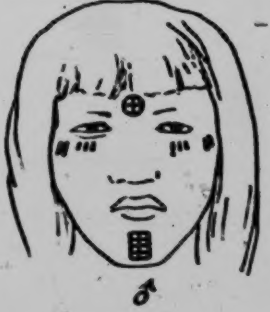


Fig. 65.

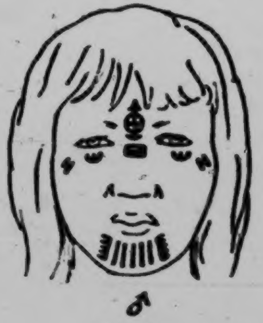
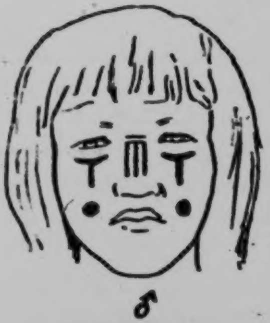


Fig. 66.

Figs. 63—66. Tattooing on men. From author's sketches.



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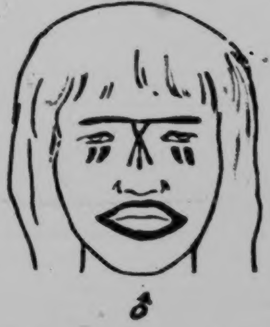

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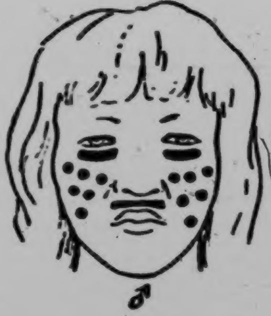

Fig. 69.

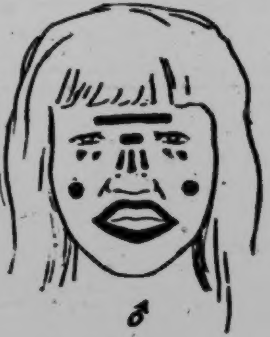

Fig. 70.

Figs. 67—70. Face-paintings on untattooed men. Figs. 67 and 68 in red; fig. 69 in black; fig. 70 in black and red (the lines at the root and ridge of the nose are black, the rest are red). Choroti. Gran Chaco. Bolivia. From author's sketches.

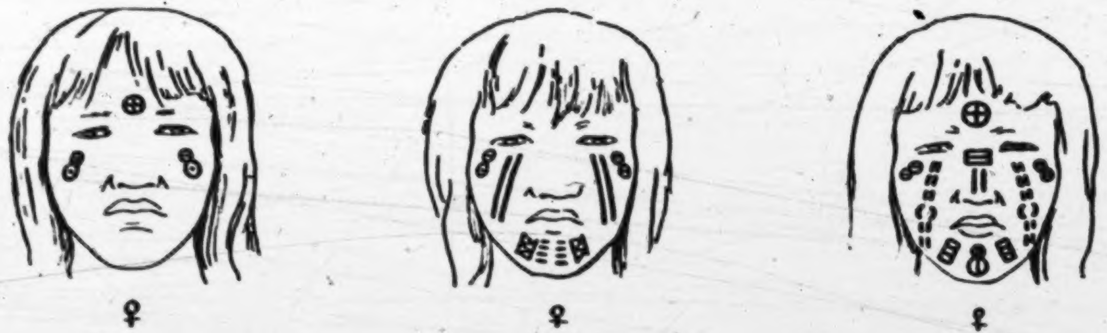

Fig. 71. Fig. 72. Fig. 73.

Figs. 71—73. Tattooing on women. Choroti. Gran Chaco. Bolivia. From author's sketches.

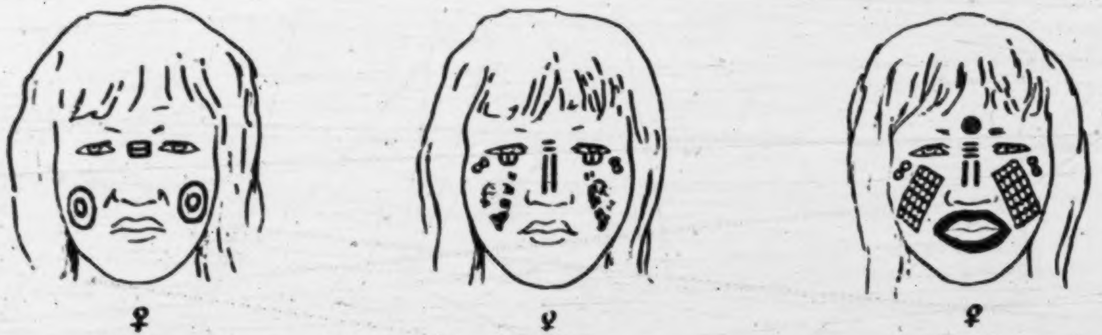

Fig. 74. Fig. 75. Fig. 76.

Figs. 74—76. Tattooing and painting on women; in the figures the tattoo marks are shown in black, the painting shaded. The painting was done with red paint. Choroti. Gran Chaco. Bolivia. From sketches by the author.

304 pattern with the cactus needles, or bone awl, until beads of blood appear, when the soot-mingled saliva is rubbed into the punctures. After healing, the tattoo marks assume a bluish colour.

302 At dances, lovers' meetings, and other important occasions, men and women paint their faces (figs. 62, 67—70 and 74—76). Face-painting may be done either in red (figs. 67—68 and 74—76) or in black (fig. 69), or in both red and black (fig. 70). Painting the face in red is commonest. The black paint consists of soot and saliva, whilst the red colour (fig. 78) is prepared from seeds of Bixa Orellana (fig. 79). These seeds are usually obtained by barter from the Chiriguano, and are carefully kept by the Choroti in small calabashes. I have also seen miniature wooden bowls (fig. 80) used as receptacles for these colouring seeds after they have been taken out of the follicle.[1] The soot is usually kept in a

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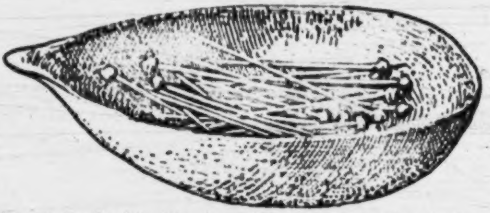

Fig. 77. Small calabash bowl containing cactus spines for tattooing. Choroti. Gran Chaco. Bolivia. 8/8. Riksm. 03. 3. 87.

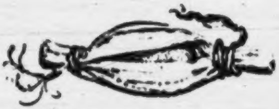

Fig. 78. Red paint, ready prepared for face-painting. This lump of paint, which is wrapped in a sheath of palm leaf, may possibly have reached the Choroti by barter from the Chiriguano. Choroti. Gran Chaco. Bolivia. 8/8. Riksm. 03. 3. 104.

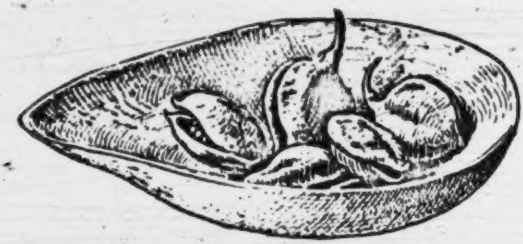

Fig. 79. Small calabash bowl containing fruits of Bixa orellana. From the seeds of these fruits colour is prepared for face-painting. Choroti. Gran Chaco. Bolivia. 8/8. Riksm. 03. 3. 102.

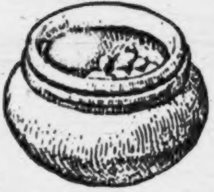

Fig. 80. Miniature bowl of wood, holding colour seeds. The bowl and the seeds have possibly been obtained by the Choroti through barter with the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 180.

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[114] [1] Owing to a mistake having occurred as to the identity of seeds, in my first treatise on the Choroti I have erroneously stated that the red paint used in face-painting is made from the seeds of Caesalpina melanocarpa.

302 bamboo holder, 10 to 15 cm long, and 1 to 2 cm in diameter. The bottom of this cylinder consists of a joint in the bamboo, and for its mouth there is a stopper of wool, grass, bast or bees-wax.

[291] In painting the face, the paint is put on with small stamps, which either consist of the jawbone of a siluroid (figs. 81, 88 b) or of a piece of carved wood (fig. 82). [531] Flat wooden stamps with diamond pattern are also used.[1] Those interesting stamps that are made from jawbones of fishes, are undoubtedly the prototype of the wooden stamps.

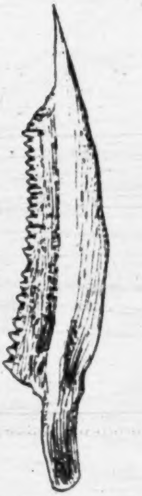

Fig. 81. Jaw-bone of a siluroid. The row of teeth is used as a stamp for putting on the paint in face-painting. The fore-end of the bone is sharpened to a point, so that this object can also be used in tattooing and blood-letting. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 100.

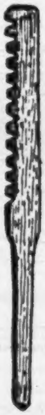

Fig. 82. Paint stamp made of a cane splinter. Is used in the same way as the fish jaw in fig. 81. Choroti. Gran Chaco. Bolivia. 3/4. Riksm. 03. 3. 94.

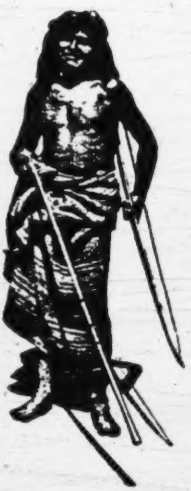

Fig. 83. A man with hair hanging loose. Choroti. Gran Chaco Bolivia. Photo. E. v. R.

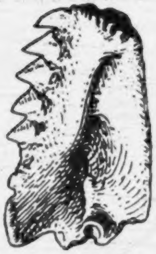

Fig. 84. Jaw of palometa fish (Serrosalmo sp.), used for hair-cutting. Also said to be a louse-comb. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 10. 3. 29.

For cutting off the hair to the desired length (figs. 16—24, 30, 39, 53 and 83), the Choroti use the jaw of the palometa fish, which is set with exceedingly sharp [304] teeth (fig. 84).[2] These are also used as louse-[303 515] combs, although the Choroti as a rule carry on their louse-hunting only by the means that nature has provided them with. It is possible that once upon a time palometa jaws formed the only combs that the Choroti possessed, but that they afterwards went out of fashion when the more practical wooden or split-cane combs came into use. Of the latter, we may take it that the split-cane combs are the

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[1] Nordenskiöld (11), fig. 42.

[2] Nordenskiöld (13), p. 100.

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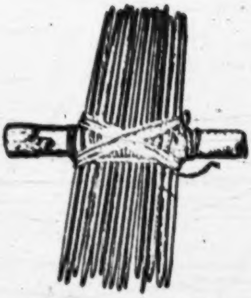

Fig. 85. Split-cane comb. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 74.

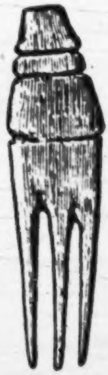

Fig. 86. Wooden comb, carved in one piece. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 70.

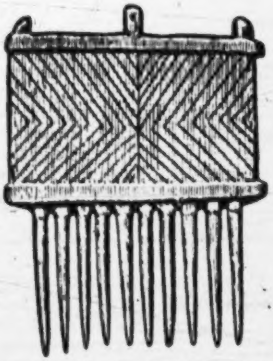

Fig. 87. Wooden comb, carved in one piece; the handle carved on both sides into angular ornament. Choroti. (This comb may possibly have been made among the Chiriguano.) Gran Chaco. Bolivia. 2/3. Riksm. 10. 3. 28.

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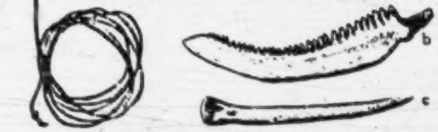

Fig. 88. Miniature bag (a) of undyed (greyish-white), brown, yellow, and black caraguatá fibre. When the author obtained the bag, it contained a stamp for face-painting (b) and a small bone awl for tattooing and blood-letting (c). Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 101.

older cultural element. The split-cane comb in fig. 85 consists of a piece of cane, about 7.2 cm long, into which a split has been made from one end, so that only 2 cm of the other end of the cane are left intact. The insides of the two legs forming this crotch have been pared down so that the space between the legs of the crotch equals the thickness of the comb teeth at their middle, i. e., in this case about 4 mm. In the fork of this crotch the teeth, 1 to 2 mm thick, have been placed and secured by tying, with their flat sides together. This class of Choroti combs are generally of a construction differing somewhat from the one described, in that the cane has not been split from one of the ends in order to afford room for the teeth, but, instead, there is usually in the middle of it a recess, into which the teeth are fixed in the way I have described.

Apart from split-cane combs, the Choroti also have wooden combs, 302 carved in one piece (figs. 86 and 87). It is probable that formerly the Choroti did not themselves make as well-made combs as the one reproduced in fig. 87, as, until quite lately, the Chaco peoples have been without good cutting implements of stone or metal. Among the considerably higher cultured Chiriguano, who, for a certainty, have long possessed metal tools, carefully worked wooden combs are very common. It is therefore possible that the neat-looking comb shown in fig. 87 was made among the Chiriguano, although it may subsequently have reached [439] the Choroti through barter. As I have previously pointed out, there are certain toilet articles, viz., colour seeds and ready-prepared red paint, of which the Chiriguano dispose to the Indians of the Chaco. The Choroti keep their toilet articles, not only in bowls and boxes of calabash, but also in miniature bags of caraguatá (fig. 88).

On account of the dearth of water that periodically recurs on the 515 Chaco, the mere nature of their country makes it impossible for many of the Choroti to observe the same bodily cleanliness as the Chiriguano. But even if the Choroti were well off as regards water supply, I do not believe that they would to any appreciably greater extent indulge in any bathing or washing *intended for the better care of the body*. For, it must be said, the Choroti do not possess anything like the Chiriguano's sense of cleanliness.

Nordenskiöld, who has had opportunities of studying the Choroti Indians on the Pilcomayo, where of course they had plenty of water, writes as regards their lack of cleanliness, inter alia, as follows: »Never did I see an Ashluslay washing his clothes, nor any Choroti, unless they had learnt it from the whites. And to bathe, just for the sake of bathing, is a thing these Indians would only do, I should think, when the weather is really hot. Fishing, however, of necessity takes the men a great deal into the water. The children often play about in the water, too, which makes for keeping them clean. And the 'wee-wee ones' get washed by their mothers when the latter go down to the river.»[1]

»Caring for the body», among the Choroti, is mainly limited to de- 515 corating the face by painting, combing the hair, picking out lice, and 302 pulling out all hairs on the face and about the private parts. Painting,

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[1] Nordenskiöld (18), p. 78.

515 Painting,
302 pulling out of hairs, and, in certain cases, the cutting of the hair, are, [782] however, probably to a great extent to be looked upon as acts of magic import.[1]

515 A toilet business that cannot very well be said to be due to any supernatural conception, is, however, lice-picking. Practically all Choroti are infested with lice. When these are getting too troublesome, somebody is called in for assistance (see fig. 89). This is a service willingly rendered by the Choroti, for it is a kind of hunting that they visibly enjoy. To an onlooker it would seem as if the louse hunters also greatly valued [262] the quarry, for as soon as a louse has been caught, it is eaten by the hunter. But nevertheless I think it a mistaken idea that phthiriophagi find the lice nice-flavoured, for head lice are surely too small to have any particular taste, good or bad. Lice-eating probably has probably originated from a desire to render harmless, in the simplest way, such lice as have been caught. These little animals take a good deal of killing, if done with the fingers only, and there is not always a camp fire handy, into which to throw them; for less squeamish individuals, the eating of the catch undeniably proved the most practical way. I think it very probable that lice-eating also among monkeys has its explanation in a wholly conscious effort at annihilating noxious parasites.

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[1] Karsten (4), Chap. 1, 2 and 6.

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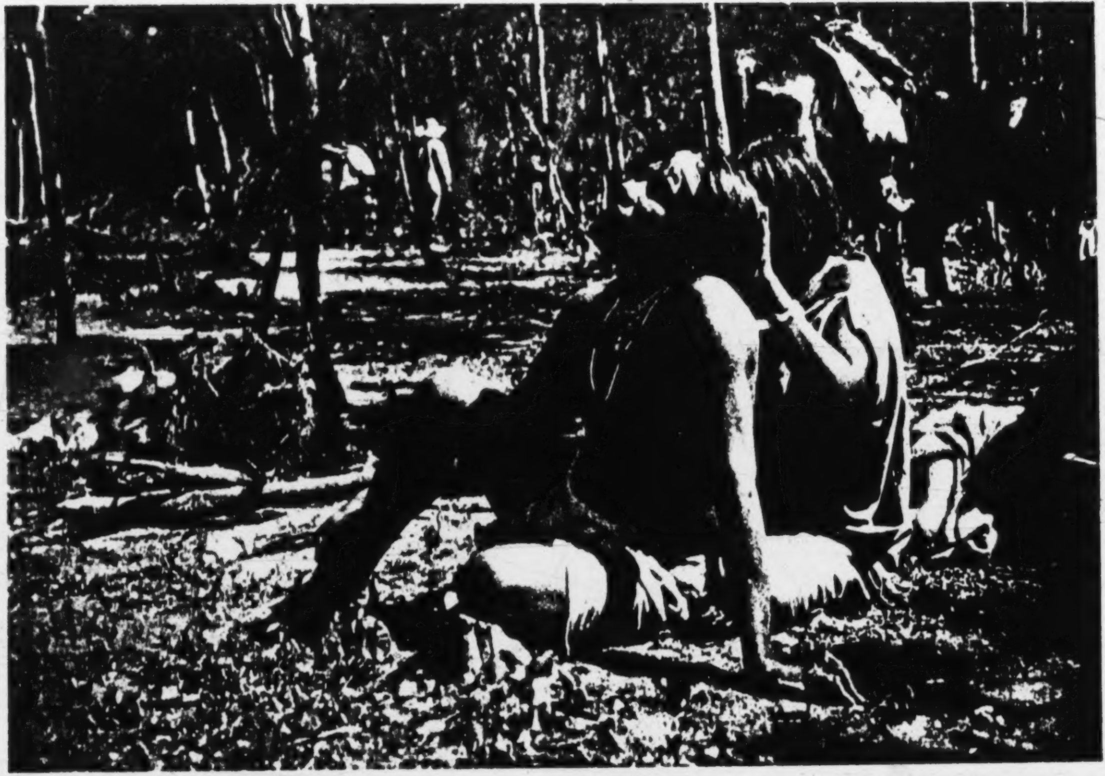

Fig. 89. Woman taking lice from her husband's head. Choroti on their wandering towards the Pilcomayo. Dry-soil forest region between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

CHAPTER III.

The Choroti (3). Modes of subsistence.

Their various industries. Hunting. Bows. Arrows. Game-stalking. Game-driving. Decoying game by imitative calls. Tracking. Snares. War weapons. Clubs. Knuckle-dusters. Bone daggers. Knives made of cane. Mail shirts. Methods of warfare. Incendiary arrows. Ambuscades. Preparing for war. Scalping. Torture. Causes of war. Fishing. Nets. Driving fish. Blocking up fishing-water. Swimming and wading, in fishing. Fish fences. Pile-buildings used in fishing. Mesh-spacers. Fish-hooks and lines. Fish clubs. Transportation of fish. Dangers in fishing. Gathering of wild food plants. Implements used in gathering wild plants. Agriculture. Cultivated plants. Agricultural implements. Cattle-rearing. Domestic animals. Nomadic life. Trading.

The Choroti subsist on hunting, fishing, the gathering of wild, edible 262
plants, and, to some small extent, also on a very primitive form of agriculture, and by trading with their neighbours.[1]

Hunting of game is mainly done with bows and arrows, and snares. [224]
The pellet-bow and the sling are met with among the Choroti, but are 41
only used as toys.[2]

The collection of Choroti objects that I presented to the Riksmuseum included 14 bows, only 11 of which are now to be found. They form the material upon which the following description of Choroti bows is founded.

The bow staves consist of some kind of wood which is hard, resilient [824]
and usually free from knots. Probably quebracho (Schinopsis lorenzii) and palo mataco (Achatocarpus praecox) are the woods most frequently used as bow stave material. The bows of the Choroti (figs. 90 and 91) are better made than those of the Chiriguano, but are not of such good workmanship as the bows that I have seen among the Toba on the upper Pilcomayo.

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[1] The description I am here giving of the Choroti refers, unless otherwise stated, to this tribe's mode of living at the time my observations were made (1901). Since then, many changes have come into the Chaco Indians' mode of living.

[2] Nordenskiöld (18), p. 48.

[p 85]

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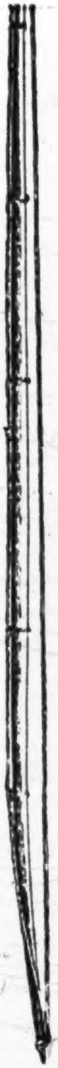

Fig. 90.
Riksm. 03.
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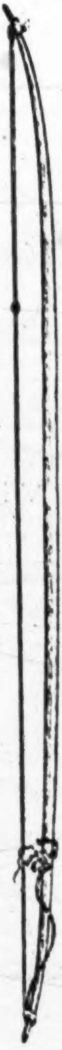


Fig. 91.
Riksm. 03.
3. 256.

Bows, Choroti, Gran Chaco, Bolivia. 1/8. In shooting, the bows are held in the position shown in the figures, i. e., with the part of the stave downwards, on which the string is wound.

Among the Choroti, as among their neighbouring tribes with the exception of the Chiriguano, the bow staves are sometimes made with a bend at the ends towards the string, these bends having been produced *before* the stringing of the bow (see fig. 91). How the bends are effected among the Choroti I cannot say, but it is probable that they, like the Lengua, for this purpose use fire.[1] According to Grubb, the Lengua shape the staves also with axe or knife so the stave ends assume the bent shape required. This can, of course, only be done by making the ends strongly tapering, as then they are more easily bent. The direct carving or cutting out of a bow stave with bent ends from a piece of woods is certainly possible, but to my thinking the stave would break at the very first attempt at stringing the bow, because in such a case the grain of the wood would not be following the bend of the stave.

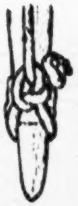
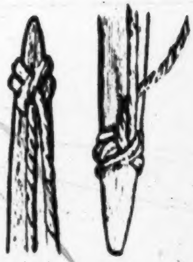


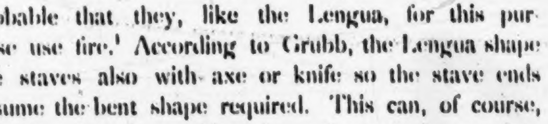
Fig. 92. Lower string hold, and string noose, of the bow, fig. 90.



a. b.

Fig. 93. Upper and lower string holds and string nooses of the bow, fig. 91.

By giving the ends of a bow stave an inward bend in the way done in certain Chaco bows, the greater part of the stave — even when stringed — is free from any strain, except when the string is being



A. B. C.

03. 3. 250. 03. 3. 256. 03. 3. 257.

Fig. 94. Traverse sections at middle of the Choroti bow staves. Gran Chaco. Bolivia. 1/1. Riksm.

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[1] Grubb (I), pp. 76 and 77.

drawn back for giving speed to the arrow. Of the circumstances which require a bow-stave construction of this kind, I have given a full account in my description of the bows of the Bangweolo swamp dwellers,[1] so that here I will only mention that such a construction is the right one only for bows that are never altogether unstrung.

Among the Choroti, as among the Mataco,[2] the curved end type of [171] bow is considerably more rare, and less developed, than among the Toba, which latter tribe, according to my opinion, has preserved the Chaco bow in its purest and most highly developed type (see figs. 272—274). Probably the Choroti formerly had bows of the same type as the Toba, but in later times the bow type of the first mentioned tribe is likely to have been influenced by intercourse with the Chiriguano.

Chaco bows have not, *as a rule*, ends that have been pared down for giving a hold to the string (Cfr. figs. 92 and 93 with fig. 205); some Choroti bows, however, have been given this kind of string hold (as may be seen from the table below). These pared down bow ends are undoubtedly an imitation of the Chiriguano stringhold. On the bow stave, immediately inside the loop of the string, the Choroti occasionally lay on a winding of caraguatá, or woollen yarn, 0.5 to 1 cm wide (fig. 93), which prevents the string loops from slipping down along the bow stave when the strain is very hard. In a properly made bow, no such windings are necessary, and were certainly not used in the old days, otherwise than exceptionally. Nowadays these windings are often seen: of the eleven Choroti bows studied by me, no less than four are wound inside the string holds.

As a rule, the bow staves have been polished very smooth. Their transverse sections at the middle are shaped as seen in fig. 94. Between the section types A, B and C, there are intermediate forms, which, in my table of Choroti bows, I have named AB and BC.[3] Such transverse sections as are found in the bows of the Choroti are also met with in bows found in the Andean mountain regions, and in the report I have published of my archaeological researches in Quebrada del Toro and on the Puna de Jujuy, I have embodied a description of some bows and bow fragments, found in ancient graves, which have the same kind of section and string hold as the typical Chaco bows. Several of the Andean bows are, however,

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[1] von Rosen (4), pp. 176—184.

[2] Cf. Krickeberg (1), fig. 33 a.

[3] For transverse sections of other Chaco peoples' bows, see Schmidt (1), p. 1027 et seq.

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Choroti bows.

Catalogue Nr., Riksm. coll. 05. 3.	Bow-stave material	Length of bow stave, cm	Transverse section at middle of bow stave	Upper string-hold	Lower string-hold	String-material	Remarks
245	Hard, resilient, free from knots	159	Type A	Not pared down	Not pared down	Twisted rawhide	String hold barely noticeably pared down
247	Hard, resilient; less free from knots	150	» »	Not pared down	Not pared down	»	
250	Hard, resilient, free from knots	146	» »	Pared to a neck	Pared to a neck	»	Bow stave near point of upper end sheathed in a rawhide covering, slipped on, about 4.5 cm long
254	Hard, resilient, free from knots	132	» AB	Not pared down	Not pared down	»	Winding for fixing string loop
256	Hard, resilient, free from knots	146	» B	Not pared down	Not pared down	»	Winding for fixing string loop
255	Hard, resilient; less free from knots	146	» »	Not pared down	Not pared down	»	Unusually sharp pointed end
251	Hard, resilient, free from knots	144	» »	Not pared down	Not pared down	»	
252	Hard, resilient, free from knots	136	» »	Not pared down	Not pared down	»	Bow stave near its middle provided with a rawhide sheath, about 8 cm long
253	Hard, resilient, free from knots	133	» »	Not pared down	Pared to a neck	»	Winding, to prevent slipping of string loop. A 5.5 cm long sheath of rawhide fitted on, near lower end of stave
258	Hard, resilient, free from knots	142	» BC	Not pared down	Not pared down	»	
277	Hard, resilient, free from knots	147	» C	Not pared down	Not pared down	»	Winding for fixing string loop.

of convex type — i. e., the staves have a convex string side, and a plane, or slightly concave, back — but I have not seen any Choroti bows with that kind of stave, which does not exclude the possibility of their occurring by way of exceptions. The convex bow is, however, better than the concave kind, and all technically perfected European target bows have their staves convex.[1] The fact of the concave bow being common among a people as low-cultured as the Choroti strikes one as something less to be wondered at than that this type of bow also was in use (together with the concave type) among the comparatively highly cultured Andean tribes.[2]

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In some of the Choroti bows, a sleeve-like covering of rawhide has been fitted on to the stave (see Table »Choroti bows», under »Remarks»).

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[1] Walround (1), p. 286 et seq.

[2] I have previously published an attempt at explaining how the concave type came into being. See von Rosen (10), pp. 34, 35 and 78, 83.

These casings are not sewn together, but consist of the seamless skin of 411
the tail or leg of some animal. At first I took it as a matter of course 825
that these casings had been put on solely for the purpose of strength-
ening the bow at some point where it looked like breaking. In order to
make certain, I cut loose a casing of this kind, which was on the bow
numbered 03. 3. 253, but I could not discover the least crack, knot, or
other defect pointing to any necessity for reinforcing the bow at that
point. But, between the casing and the stave, I did find some flattened cakes [237
of excrement from some herbivorous animal. Whether these excrements 514]
had *purposely* been placed inside the casing, is of course impossible to say,
but if they were put there on purpose, then they undoubtedly possessed
some magical significance. In such case the idea must have been that
they would bring good luck in the hunting of the species of game whose
excrement had been placed inside the casing (see p. 181). As among the
Indians there is a very wide-spread notion that whoever possesses the [789]
skin of some animal also possesses a certain mastery over the spirit of
that animal,[1] it is not impossible that the skin casing itself is of a magic
character. Professor Emil Holmgren, who, at my request, kindly carried
out a microscopical examination of the excrement flakes as well as of the
piece of skin, considers that the character of the latter points to its having
been a part of the tail of an animal of the goat, sheep, or *cat* tribe, and
that the colour and grouping of the hairs are indicative of the *last-mentioned*
category.[2] That parts of animals' bodies are used by the Chaco Indians as [171]
hunting amulets, is, among other things, evident from a statement by
Nordenskiöld upon the subject of hunting among the Ashluslay, who are
neighbours of the Choroti: «In hunting, the Ashluslay make use of various
amulets. If, in the always indispensable caraguatá bag, one carries the
head of a tortoise, then one is able to stalk close up to the deer, without
putting them to flight. When hunting ostriches, it is a good thing to
bring along pieces of skin taken from the breast of ostriches which one
has killed.»[3] As to the other two bows, I have refrained from cutting 411
off the skin casings, and therefore cannot say whether the latter conceal
any cracks or not. On the staves of the bows Nos. 03. 3. 252 there are,
however, to be seen, close to the casing, several deep scorings, running

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[1] Karsten (4), p. 90.

[2] Opinion dated August 24th, 1921. Rockelstad collection of Manuscripts, Volume 1921, «II».

[3] Nordenskiöld (13), p. 49.

411 with the grain of the wood, and these point to the possibility that the casing may be concealing some defect in the stave. There is, however, nothing which prevents the casing on this bow from being, at the same time, an instrument of magic and a practical means of reinforcement.

411 The bow string, which consists of two, three, or more strips of skin
284 (usually deerskin),[1] is often twice the length of the bow (see figs. 90, 95
[283] and 96). One end of the string is fixed with a hard knot to one of the bow ends fig. 93 a). This end of the bow is pressed on the ground, and then the stave is given a slight bend — with the help of the knee — and the string is wound on to the upper bow end, in the way seen in figs. 92 and 93 b. The spare end of the string is then tied along the outer side of the bow, as seen in fig. 90. This figure shows a comparatively well-made Choroti bow, without pared-down string-holds, or windings for holding the string in position, and with the string put on in the proper way. On the other hand, fig. 91 shows a bow with string-hold windings and a string badly put on. In shooting, the Choroti generally hold the bow so that the end wound with the loose end of the string points downwards (figs. 90, 91 and 96).

411 Even when the bow is »at rest» (that is to say, when the string is not much tightened), the middle part of the string, owing to the said curving of the stave ends, will be at a certain distance from the stave, which makes it possible to use the bow without first tightening the string. But if there is time for shortening the string, this is almost always done. The Choroti shorten and lengthen the bow string, in the same way as is done by the Chiriguano on their bows (see p. 208).

For the protection of the wrist from the blow of the string, the Choroti sometimes use broad wrist guards of leather.[2]

The arrows used by the Choroti are, as a rule, tipped with some hard,
[177] heavy wood (figs. 97—103), but iron arrow-heads (figs. 104—106) are more and more coming into use. Occasionally, the fore end of a wooden arrow-head may be fixed into the marrow cavity of a sharpened piece of bone. Such bone-tipped arrows are, however, very rarely met with among the Choroti; for my own part, I failed to acquire more than a single

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[1] The Choroti also use bow strings made of caraguatá fibre; Nordenskiöld (11), p. 36. I never myself, however, saw any bow strings of that kind.

[2] Nordenskiöld (11), p. 43.

[text continues on p. 94]

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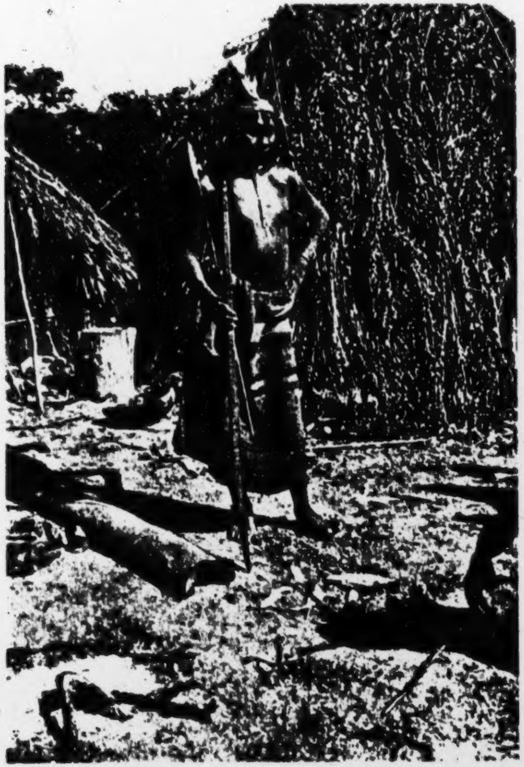

Fig. 95. A man with bow and arrow. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

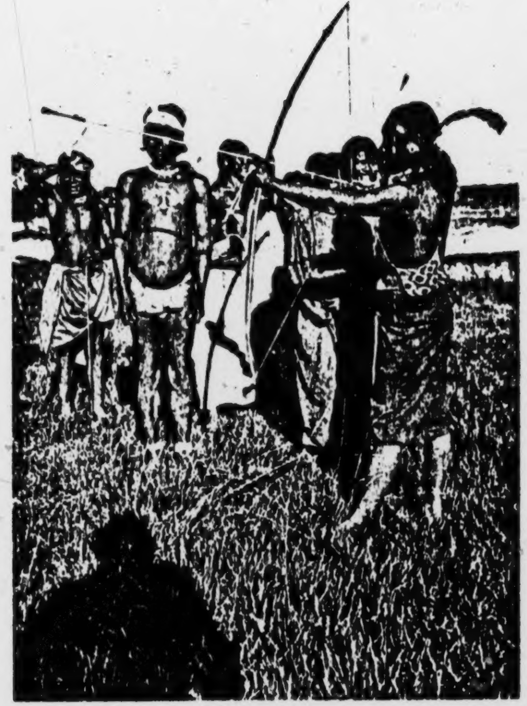

Fig. 96. A man aiming with a bird arrow. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 92 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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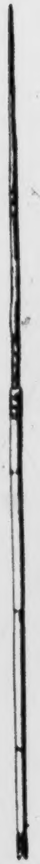

Fig. 97. 1/8.
10. 3. 137.

Fig. 98. 1/8.
10. 3. 126.

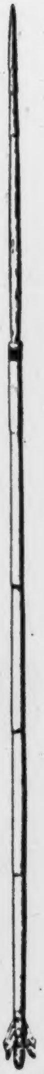

Fig. 99. 1/8.
03. 3. 332.

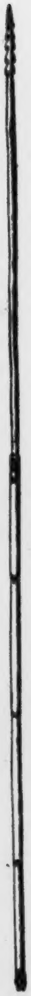

Fig. 100. 1/8.
03. 3. 314.

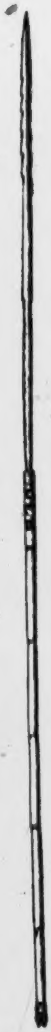

Fig. 101. 1/8.
03. 3. 317.

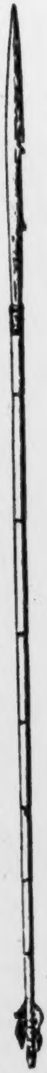

Fig. 102. 1/8.
10. 3. 98.

Fig. 103. 1/8.
03. 3. 342.

Arrows tipped with hard, heavy wood, and with shafts of reed. Choroti. Gran Chaco. Bolivia. Riksm.

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[237]

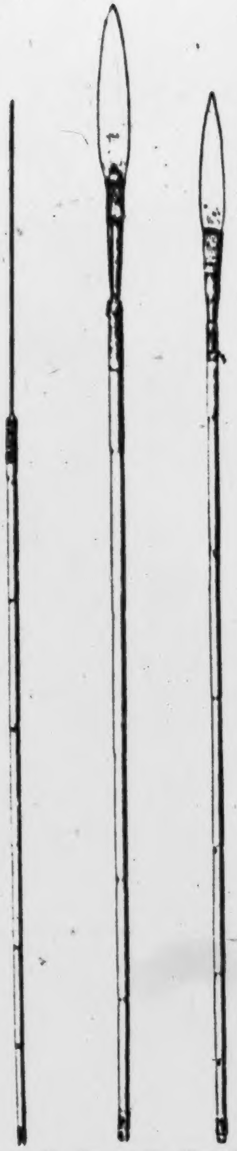

Fig. 104. 1/6 Fig. 105. 1/6. Fig. 106. 1/6.
03. 3. 355. 03. 3. 360. 03. 3. 375.
Arrows tipped with iron, and with reed shafts. Choroti. Gran Chaco. Bolivia. Riksm.

specimen, which ought to be in the Riks museum collection (numbered 03. 3. 259).[1]

The arrow-shafts consist of a reed, and are generally without feathers. When they do occur, they are fastened on in the way fig. 107 shows.

The wooden arrow-heads, which are usually of quebracho (Schinopsis lorenzii), palo mataco (Achatocarpus praecox), or palo santo (Bulnesia sarmienti), are fitted into the reed shaft, the front end of which is wound with caraguatá fibre in order to prevent its being split open by the arrow-head. This winding is coated with bee's-wax. The rear end of the reed has a notch for the bow string (see fig. 107). The length of the reed is adjusted in such a way that the notch in the butt end can be made immediately behind a joint, which naturally increases the strength of the shaft butt. The rear end of the shaft too is provided with a heavily waxed winding of caraguatá fibre. The thicker end of the reed (the lower end of the growing reed) is always used for fixing the arrow-head, as then the joints slip more easily over the bow-stave than if the head were inserted in the thinner end of the reed.

Such arrows as are pointed with thick iron wire (fig. 104), have the rear end of the point wound with well waxed fibre. The fibre-wound part of the arrow-head is pushed so far into the shaft as to make the front edge of the winding come flush with the mouth of the reed shaft. Lanceolate iron heads (figs. 105 and 106) are fitted into a cleft wooden socket, in the manner I have described from the Chiriguano (see p. 208).^a Over the winding, which is applied about the socket, there is sometimes, covering it wholly or in 411 part, a casing of snake or lizard skin (fig. 106). In order that the heavy arrow-head (together with its socket) may not happen to slip out of the shaft when the arrow is being carried in the belt, the foremost end of the string used in winding on the socket is often passed back along the socket ((in the way shown in fig. 105)) and tied on to the winding on the fore end of the shaft.

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[1] Cf. Nordenskiöld (11), fig. 5 b.

a [Not processed.—Analyst]

[223] Poison is never put on the arrow-heads, but these are often provided with barbs (figs. 99—102). For bird shooting the Choroti use arrows with a club-shaped head (fig. 103), in appearance similar to those I have described from the Chiriguano. Among the Choroti, however, there are seldom seen club-like arrow heads that have, in the centre of their striking face, a projection such as the Chiriguano arrows have (see fig. 212 and p. 209). As regards the Choroti arrows I have here reproduced, their lengths, and other particulars about them, will be seen from the appended table. [284]

[172] I think I ought to mention that in ancient Indian graves in the mountain region there have been found arrows of exactly the same types as those nowadays used by the Choroti and other peoples of the Chaco.[1] These types are, however, not those that are characteristic of the mountain region, the arrows of the mountain tribes now inhabiting the area of the ancient Peruvian realm having quite a different appearance.[2]

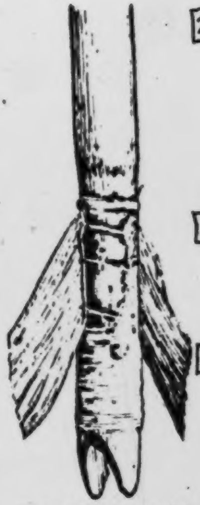

Fig. 107. Feathering of the arrow, fig. 99. 1/1.

As regards arrow heads, I wish to point out that even the most singular forms may be common to peoples that are each others' antipodes. In cases where human beings have reached much the same stage of cultural development, when they have similar needs, and access to the same sort of materials for weapons and other implements, then similar forms of implements are apt to be produced, independent of time and locality. As an example of this I may adduce that among the Esquimaux of western Greenland are to be found arrows with bone heads of exactly the same

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[1] See for example Boman (4), pp. 729—730; Joyce (1), plate XXVI, fig. 4; Lehmann Nitsche (4), p. 37.

[2] See for example von Rosen (10), figs. 140—143.

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The Choroti arrows in figs. 97—106. Synoptic table.

Fig.	Head					Socket		Shafting	Shaft			Length of arrow, cm	Mode of using
	Material	Shape	Length beyond socket, cm	Length beyond shaft, cm	Arrow poison	Material	Length beyond shaft, cm		Material	Length, cm	Feathers		
97	Hard, heavy wood	Needle-like, with irregular tranverse section; no barbs	—	40.1	None	—	—	Arrow-head stuck into a hole in the shaft	Reed	46.8	None	88.9	Hunting of various middle-sized game; also a war weapon
98	»	»	—	35.7	»	—	—	»	»	65	»	100.7	»
99	»	Needle-like Section of rear portion irregular; of front portion triangular. Barbed along all three edges	—	35.9	»	—	—	»	»	75	Two, opposite each other, see fig. 107	110.9	»
100	»	Needle-like. Section of rear portion irregular; of front portion square. Barbs along two opposite edges	—	58.1	»	—	—	»	»	72.4	None	130.5	»
101	»	»	—	63.1	»	—	—	»	»	75.8	»	138.9	»
102	»	Lanceolate, two-edged. Barbs along one edge. Rear portion of irregular section	—	31.6	»	—	—	»	»	80.1	Two, opposite each other, as in fig. 107	111.7	Hunting of bigger game, such as jaguar and ostrich. War weapon for short ranges
103	»	Club-like	—	8.4	»	—	—	»	»	125.5	None	133.9	Bird-shooting
104	Thick iron wire	No barbs	—	48.1	»	—	—	Rear end of arrow-head wound to a length of 9.3 cm with waxed fibre. The wound part of the arrow-head fitted into a hole in the shaft	»	101.7	»	149.8	Hunting of various middle-sized game. War weapon
105	Iron	Lanceolate, with tang. No barbs	17.7	—	»	Hard, heavy wood	13.4	Tang fitted into a cleft in the socket. Socket fitted into a hole in the shaft	»	87.9	»	119	Hunting of larger game, such as jaguar and ostrich. A war weapon for short range
106	»		14.7	—	»	»	9.5	»	»	85.8	»	110	»

shape as the strange-looking Choroti arrow, which is seen in fig. 102.[1] 411 The Esquimaux, like the Choroti, live in a bone-and-wood age, although the latter people to a large extent use the bone-hard wood of several species of Chaco trees in the place of bone. In both cases the arrows are intended for hunting big game. It is a strange thing, however, that the arrows just referred to, from Greenland and from the Chaco, are so much alike in shape that one might point to a reproduction of the Esquimaux arrow in question as being the type of a lanceolate, barbed, Choroti arrow. As to the ancient Indian arrows of Chaco type found within the Andean region, previously referred to, it is, however, not only their form that is identical with the Chaco arrows, but also the material (reed, and species of wood that do not grow in the mountain region) is typical of the Chaco. This being so, it may, with great certainty be established that the ancient Indian arrows in question really originate from the Chaco, and that we here have one of the many indications that point te[a] old-time communication between the mountain region and the plains to the east of it.

The Choroti hunt all sorts of game, from jaguars, pumas and ostriches, 224 to lizards and rats. Among edible game are counted, among others, also 262 birds of prey (even vultures), foxes, armadillos, rats, lizards and snakes. On the other hand, some Choroti, at least, will not touch deer's flesh, as they believe these animals to be possessed by evil spirits.[2] Some of [825] the species of animals just enumerated, too, are by certain individual Choroti considered dangerous to eat (see p. 114).

When the Choroti are out hunting with bow and arrow, they naturally 224 endeavour to stalk as closely as possible up to the game, and then occasionally employ a stratagem common to many tribes who live by the chase, namely that of tying tall leafy bunches about waist and shoulders, so as to give the hunter the appearance of a bush. This stalking trick is also known to the Lengua. On this point, Grubb writes to the following 000 effect: »The ostrich is a very wild, though stupid bird, and the hunting methods of the Lengua are based on this fact. When hunting in a palm forest, the hunter ties a few palm leaves together and fastens them to his head and shoulders, so as to resemble a small palm. By means of this disguise he has no difficulty in getting within easy range of

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[1] Solberg (1), p. 73, fig. 54, bottom row of arrows, the second specimen from the left.

[2] Karsten (2), p. 32.

a [read "to": -analyst]

000 the bird. And if he happens to be hunting in a district where ant-hills abound, he uses for concealment, instead, a bunch of creepers of the kinds that are growing on every termite hill. Where the country is open, and only grown with low bushes, Lengua hunters employ another trick. They close up the spaces between a large number of bushes that are more or less in a straight row, by which means a long, low, and hedge-like fence is produced. The bowmen are then posted at suitable points along the fence, and other Indians, who have been lying concealed at a distance, proceed to drive the ostriches towards it. Although the ostriches could easily jump the low fence, they are stupid enough to run along it, with the idea of finding an opening where they might get through. In that way they sooner or later get quite close to the bowmen, who are then easily able to kill them with their arrows.[1]

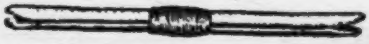

Fig. 108. Implement consisting of two reed splints, tied together. Said to be an imitative call instrument for decoying game into range for shooting. Choroti, Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 218.

224 The Choroti often decoy game by imitating the calls of various animals.
198 The game-calls are sometimes produced by artificial means, sometimes without any instrument. Figure 108 shows an implement that, reputedly, was used for enticing game to approach within arrow range, but I have unfortunately no notes to explain the manner in which it was used. I reproduce it here, however, in the hope that some other Chaco student may be able to supply such information about it as is now lacking. The object consists of two reed splints tied together with their concave sides facing each other.

224 The Choroti are skilful trackers, though in this art they do not come up to the level of the game-hunting tribes I came into contact with in Africa. When I was shooting in the neighbourhood of our Tatarenda camp, I often had with me Indians who assisted me to find the game, and to recover killed or wounded animals. They then always walked in single file (»Indian file»), as seen in fig. 109.

223 The snares that the Choroti use consist of spun caraguatá fibre; they are mostly used for catching birds, and are arranged either as springe snares, or are placed in a forked branch like an ordinary running noose trap.[2]

[1] Grubb (1), p. 85.

[2] Nordenskiöld (17), figs. 45 and 48.

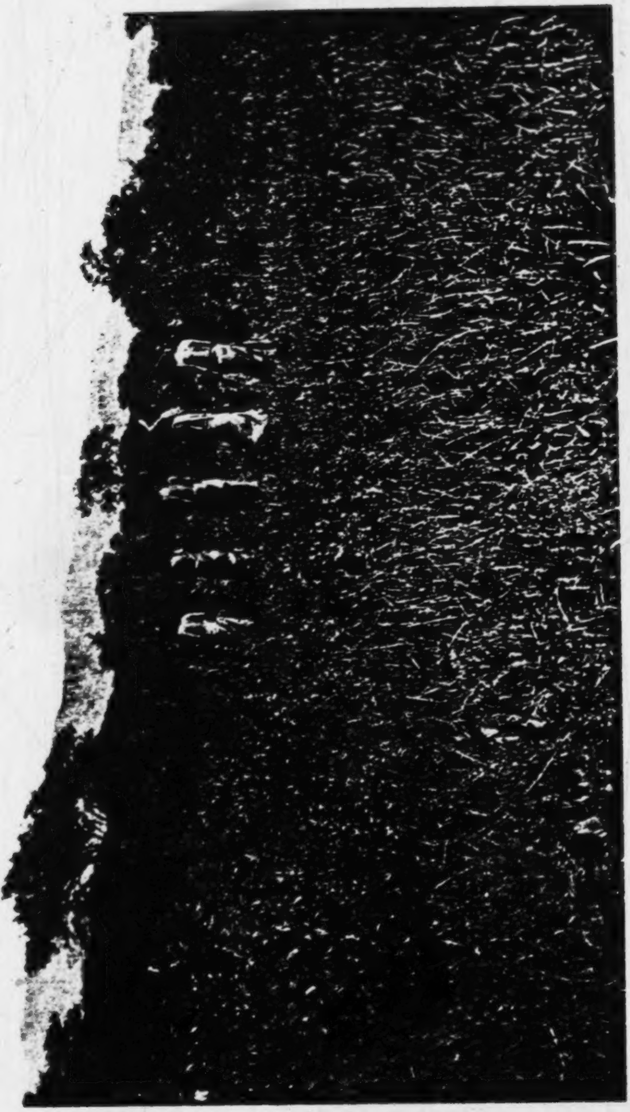

Fig. 109. Indians searching for ostriches. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 100 is blank]

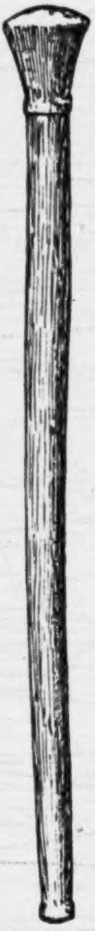

Fig. 110. War club, of hard, heavy wood (palo mataco. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 10. 3. 98.

As war weapons the Choroti use, beside bows and arrows, 411 short, round-handled clubs of some very hard and heavy wood, usually palo mataco. The head and handle of the clubs is always carved in one piece (fig. 110). With these seemingly not very formidable weapons, the Indians are able — on account of the great hardness, heaviness and strength of the club material — to deal terrible blows, and they know how to use them with great skill.

In fighting their rivals, the Choroti women 579 sometimes use knuckle-dusters of tapir hide or 562 wood,[1] the latter being of a type identical with 411 specimens found in ancient Indian graves in the mountain region to the west.[2] The Choroti use also bone awls as daggers. A bone awl especially suitable for a weapon is reproduced in fig. 111. It consists of the lower part of the leg-bone of [412] a small deer; the foot serves for a handle, and the hoofs forms an excellent pommel. The weapon fits the hand very well when the thumb rests against the sole of the hoof.

For cutting up game, the Choroti use knives 412 made of sharp-edged cane splinters. Knives and poniards, of cane, have been very extensively used in South America. Even among tribes possessing knives of stone or metal, to this day knives of cane are being used in certain ritual ceremonies. [17] Thus Bolinder, for example, mentions that among the Ijca Indians of Northern Columbia, in childbirth the navel is cut with a cane splinter.[3]

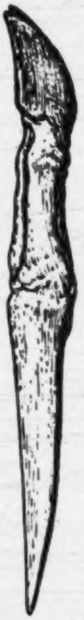

Fig. 111. Awl, made out of a shank bone of a small deer. Bone awls are sometimes used as 714 poniards. Choroti. Gran Chaco, Bolivia. 3/4. Riksm. 03. 3. 181.

The Choroti do not, however, possess only weapons of offence, but also weapons of defence. When on the subject on dress, I have described the mail shirts, made of closely woven, thick

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[1] Nordenskiöld (11), p. 55 and 56; also (13), p. 81.

[2] von Rosen (1), pp. 203 and 204.

[3] Bolinder (1), pp. 240 and 243.

714 caraguatá string, that are used by the Choroti as a protection against arrows (fig. 36), and have mentioned the protective abdominal rawhide belts that they put to the same use.

To many it may sound strange that mail shirts made only from vegetable fibre actually should be able to afford effective protection against arrows and other sharp-pointed, or edged, weapons. Body armour of this kind has, however, been used by many different peoples, and even as early a writer as Homer makes mention of »linen cuirasses».[1] When Herodotus makes a list of the weapons of offence and defence carried by King Xerxes' Assyrian auxiliaries, this list also includes »cuirasses made of linen».[2] Textile armour is, besides, also referred to by several ancient Greek and Roman authors. In the tales of the early history of Rome, we can read of Aulus Cornelius, a leader of Roman horse, how in battle he stripped Lars Tolumnius, the king of Vejentes, of a »linen cuirass» and solemnly dedicated it, among »spolia opima», to Jupiter Feretrius, at his temple on the Capitolium.[3] This, it must be admitted, undoubtedly points to the great esteem in which these defensive weapons must have been held. That the fibre mail shirts of the Choroti form a rather safe protection against the wood-tipped arrows that are generally used on the Chaco, is a circumstance I have already set forth.

726
411 Occasionally the Choroti make use of incendiary arrows for the purpose of setting fire to the villages of their enemies. On our way home from the Pilcomayo, in Argentine territory we passed a sugar plantation, to which Indians from different parts of the Chaco had come for work. Two tribes, between whom old enmity existed, had erected temporary villages for themselves near the plantation, and, for some reason or other, the old hostility was kindled into flame, so that it came to open fighting. The owner of the plantation told us that, on the night before our arrival, the Indians had shot incendiary arrows at each other's villages, and that by this means they had managed to set several huts on fire. We could quite believe that the scene then enacted was both terrifying and grand, with the fire-carrying arrows flying about like rockets in the night, whilst the war cries of the Indians made accompaniment to the battle.

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[1] Homer (1), epic 2, verse 830.

[2] Herodotus (1), 7: 58–64, p. 473, Lindskog's translation.

[3] Neumann (1), p. 355.

This Indian practice of setting fire to their enemies' dwellings by shooting arrows has been mentioned as early as the 16th century. Thus Schmidel, for instance, relates how the Indians in the year 1535 set the very town of Buenos Ayres on fire, by their bow-shots, so that the town was burnt to the ground.[1] 726

For choice, the Indians always try to attack their enemies by surprise. When the Indians on the Pilcomayo (Toba, and probably also Choroti) wished to annihilate Crevaux's expedition, by their at first very peacable and confidence-inspiring demeapour, they succeeded in so completely duping the members of the expedition that the latter did not take the trouble of always going about armed. Then the Indians concluded that the time was ripe for action, and at a preconcerted sign they fell upon the expedition, only one of whose unsuspecting members managed to escape. According to what an old Mataco chief told me, the explorer, Ibarreta, was also treacherously killed by the Indians. Ibarreta was said to have fallen ill whilst staying among Tapiete Indians in the Pilcomayo swamps in the interior of the Chaco, and to have been killed by those Indians in his sleep.

When the Indians of the Chaco are about to embark upon some warlike enterprise, they first get up a festival of drinking and dancing, at which large quantities of algaroba beer are consumed.[2] They paint their bodies [302] black and red, and adorn themselves with plumes and other ornaments; this is, at least partly, done as a preparation for going to fight not only earthly enemies, but also supernatural powers.[3]

The Choroti take their fallen enemies' scalps, and subsequently, on 727 special occasions, hang up the scalps in their villages;[4] they also highly prize the scalp-locks, resembling brooms or shaving-brushes (see figs. 42 and 52), that they obtain from slain foes.

The Chaco Indians sometimes torture their war prisoners. According to what the Bolivian soldiers at Fort Crevaux told me, the way they used to torture their prisoners was as follows. The prisoner was laid flat on his back on the ground, and his hands and feet tied to pegged-down stakes. Dry sticks were placed in a heap on the stomach of the victim,

[1] Schmidel von Straubing (1), p. 23.

[2] Nordenskiöld (13), p. 122.

[3] Karsten (2), p. 36.

[4] Nordenskiöld (13), p. 121 and 122.

727 and this miniature pyre was set alight. The flames only rising upwards, the fire and the glowing cinders would only very slowly burn through the skin and into the stomach. It is difficult to imagine a more cruel method of torture.

721 Many of the wars waged between so-called civilized nations have owed their origin to greed of the wealth that nature produces, and among the Indians, wars may be due to the same cause. In the case of primitive peoples, wars are perhaps mostly a competitive struggle for food, and we may take it for granted that the fights that have taken place between the tribes on the Pilcomayo have been over the fishing in that river, so very important a matter to the Indians. It is partly for this reason, and partly because war is a hunting of human beings, that I have dealt with the war methods, and the war weapons, of the Choroti in this chapter on their means of subsistence.

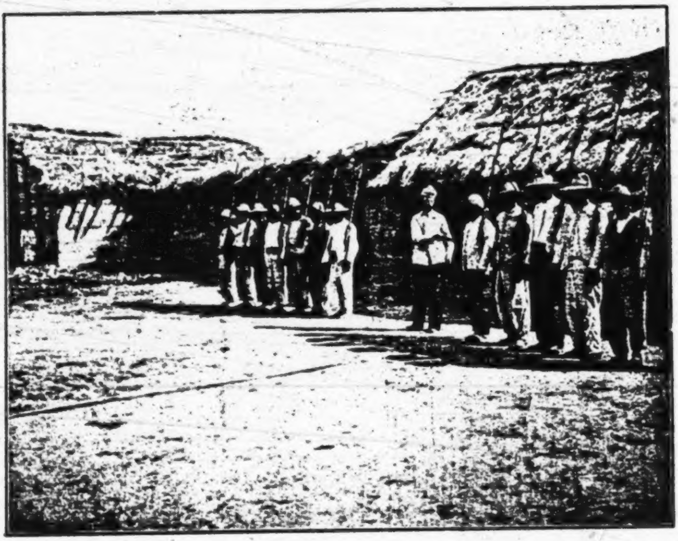

Fig. 112. Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

226 Owing to the circumstance that the part of the Choroti tribe among which I was carrying on my studies, at the time of my stay with them,

had their dwellings far from any fishing water, I myself never saw 226
these Indians engaging in fishing. As they had, however, brought with them their fishing gear (except the frameworks of their landing-nets), I succeeded in making a good collection of this kind of implement.

The Choroti fish with nets (using them as landing-nets), fish-hooks, and with bow and arrow. The last-mentioned fishing method, which, as far as I know, has only been observed by Moberg a Swede, is, however, only used during the latter part of the rainy season.[1]

The nets are either fastened so as to fill up the angle between two rigid poles, which are tied together by their lower ends (fig. 113), or between two supple rods, tied together at both ends (fig 114). The angle-set poles, and the rods, seem as a rule to be about 3 m in length. These fork poles and rods (dip-net frames) the Choroti had not troubled to bring with them to their dwelling site — far removed from any fishing water — in the neighbourhood of Tatarenda, and therefore my description of these implements is founded on two specimens preserved in the Gothenburg Museum, and on such photographs[2] and information as Nordenskiöld has kindly given me.[3]

When fishing, the Indians often split up into two parties, one of whom make a bar across the river with the nets that are stretched between poles (the barring-nets), which are then held so that the points of the fork rest on the bottom of the river. The other party of fishermen drives the fish towards the barring-nets, at the same time using their nets that are fixed between two rods (dip-nets) for catching fish.[4] These latter nets are used like large landing-nets, and, by means of the flexible rods, can be opened and closed. The Choroti have no water craft of any kind (not [501
even rafts), but do their fishing swimming or wading. When fish is scarce, 481]
the Choroti block up the Pilcomayo with pole-built fences that, here and there, have openings in them. In front of these, the Indians sit on small platforms (figs. 114 and 115), and fish with dip-nets. When the weather is cold, or when fish is to be fried, fire is made on the platforms, which 343
are isolated from the fire by means of a layer of river mud.[5] These 226

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[1] Nordenskiöld (11), pp. 60.
[2] Nordenskiöld (18), fig. 8, 11 A, plate 14¹, and Karsten (2), the figure on p. 34.
[3] Letter dated 14. 7. 1921, Rockelstad collection of manuscripts, volume 1921, letter N.
[4] Nordenskiöld (18), p. 43.
[5] Nordenskiöld (18), p. 44.

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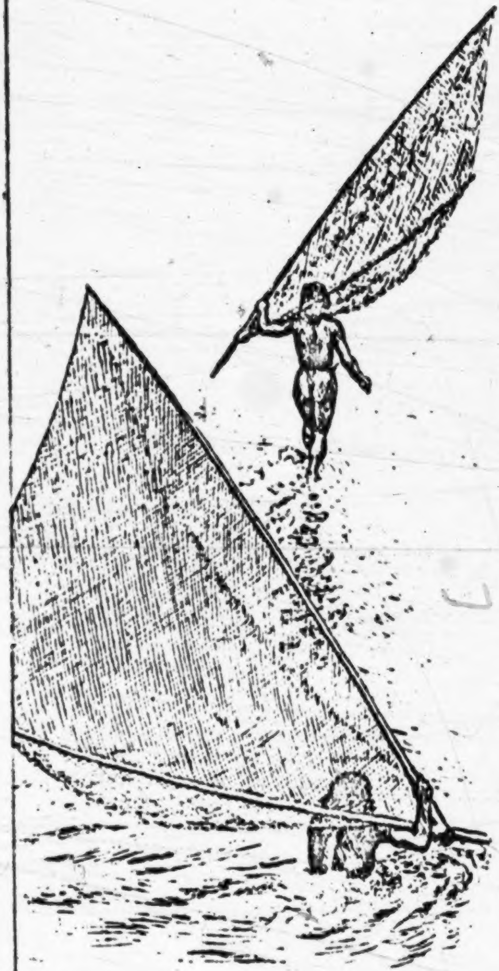

Fig. 113. Ashluslay fishermen with barring-nets. Pilcomayo. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

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little water platforms are constructed in about the same way as the food-storing platforms, or cooking sheds, that the Choroti build on dry ground (see p. 38). The only difference is that the two horizontally placed sticks that support the platform (the roof) in the latter, are resting in natural forks formed by the top ends of the uprights (see fig. 28), whilst the two sticks that support the platforms (the floor) of the river structures rest against bindings which have been tied round two uprights driven in close together. This arrangement almost certainly aims at the possibility of raising or lowering the platform in accordance with the level of the river water. In all other respects there is very great resemblance between the platforms that are built in rivers (fig. 115) and the cooking sheds built on dry land (fig. 28). In chapter VII I have tried to show how pile structures on firm ground have inspired the idea of building similar structures in water (see pp. 192—199 and 38—47).

The Choroti are so much at home in the water that they are able, whilst swimming below the surface, to catch fish with their dip-nets.

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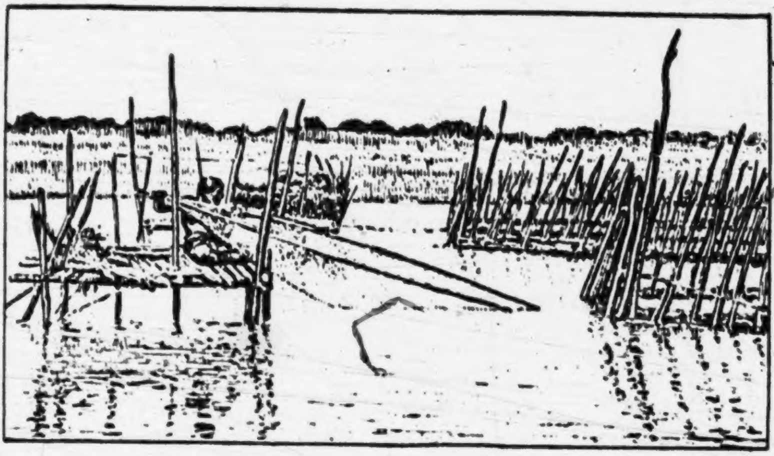

Fig. 114. Pole-built fish fence across the Pilcomayo, with openings at intervals. On a platform in front of one of the openings a Choroti Indian is sitting, fishing with a dip-net. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

227 In figs. 116 and 117 is shown a bar net of caraguatá yarn. When I, by barter, acquired this net, for the reasons already given it was not mounted on its frame, but was kept rolled up, and with its mouth drawn together (see figure), in order to take up as little room as possible. The size of the net shows that it could be extended, in a triangular shape, between the arms — about 3 m long — of a fork (see fig. 113). The yarn of which the net is made is two-ply, and has a diameter of about 1.5 mm. The meshes are square, with sides of 4 cm.

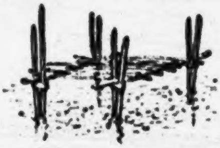

Fig. 115. Detail sketch of a platform of the kind seen in fig. 114. From Erl. Nordenskiöld.

In my collection there are also nets with meshes whose sides are, respectively, 2.6 and 1.6 cm. But the Choroti have probably nets with still smaller meshes, for I have in my collection a mesh-spacer which is only 1.1 cm wide.[1] Nets that are as small-meshed as this, are suitable for catching bait for fishing with hook and line.

The largest mesh-spacer in my collection is very nearly 4 cm wide (fig. 118), and would therefore have been used for the weaving of nets

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[1] Riksm. 03. 3. 241.

227 of the kind reproduced in figs. 116 and 117. The mesh-spacers are made of some hard, heavy wood, and usually very smoothly polished.

226 As I have said before, the Choroti also fish with hook and line, although this method of fishing is not by far as common as fishing with nets. In fig. 119 I have reproduced a fish-hook and line. The fish-hook has been made by the Choroti themselves from some awl-like tool acquired in some way or other from the whites. Formerly the Choroti probably used fish-hooks of bone or hard wood. Such hooks are still being used by the Lengua.[1] The line, which consists of caraguatá, is not threaded through any eye, or tied to any notches in the top of the shank of the hook, but is laid straight along the upper part of the hook, and fastened by winding on it a thinner caraguatá string. At the lower part of the hook, a caraguatá

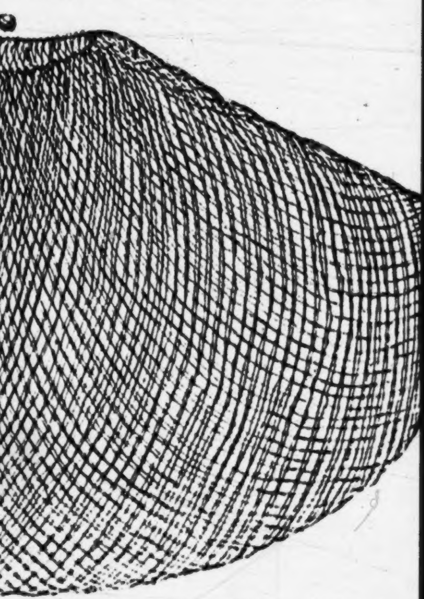

Fig. 116. Net made of caraguatá fibre yarn, for extending in a triangular shape in the way seen in fig. 112. It is here shown with its mouth drawn together, by means of a string running along its edge, so as to be more easily rolled up for transport. The meshes are quadratic, with sides 4 cm long (see fig. 117). The yarn, which is two-ply, has a diameter of about 1.4 mm. Choroti. Gran Chaco. Bolivia. 1/16. Riksm. 03. 3. 337.

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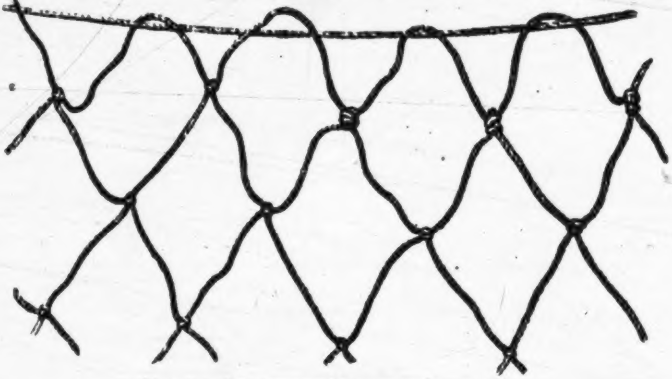
[1] Grubb (1), p. 81.

thread is wound on and fastened. Probably this thread,[1] was used for 226 securing the bait so that it should not slip off the barbless hook. The line, which consists of three-ply yarn, is 4.4 m. long.

When a fish has been caught, it is killed with small, round-sectioned clubs of some hard and heavy kind of wood (fig. 120), and then strung on a cord, which, by means of a wooden needle (fig. 121), is threaded through the head of the fish, being passed through its eyes. The fish-festooned cord is carried round the fisherman's waist. This is a safe and handy way of carrying the catch whilst continuing fishing operations, swimming or wading. When a collected catch of fish is to be transported home to the village, the fish needle and cord also come in very useful. The implement here shown is from the Toba, as the Choroti specimen which I brought home (Riksm. 03. 3. 243) is now lost. The needle in the [824] implement here reproduced probably consists of palo mataco, or quebracho, and has a length of 380 cm and a diameter of 0.5 cm. The cord, however, tapers towards the ends, its extreme points being only a [283] few millimetres in thickness. One end of the cord is bent back so as to form a loop. Through this loop, and through the eye of the needle, a thinner caraguatá string has been passed, several turns, and with this string the loop has been wound, in the way seen in the picture. The specimen here shown is meant for carrying large-sized fish, but these implements are also to be found of much slenderer dimensions.



[286]

Fig. 117. Enlargement of the net in fig. 116. $^{2}/_{3}$.

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[1] I have no notes concerning the purpose of this thread.

136 481 292 I have mentioned that the Choroti do not possess any water-craft, so that when fishing with nets they often have to wade or swim. In doing this, they expose themselves to being attacked by palometa fishes. As a protection for their legs in wading, the Indians occasionally wear a kind of mail stockings of caraguatá (see p. 54), but when they are swimming, they often get badly mauled by these fierce fishes, and I saw several Choroti with enormous scars from the bites of palometas (fig. 53). It also happens, now and again, that Indians, whem swimming, get killed by caymans, which, here and there, are plentiful.

[286 824]

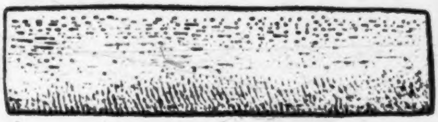

Fig. 118. Mesh-spacer of palo santo (Bulnesia sarmienti). Length 14.8 cm, width 3.8 cm; thickness along longitudinal axis 0.8 cm. The thickness decreases towards the longer edges, which are rounded. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 242.

222 In the collection of the fruits, roots and pith of wild plants the Choroti possess an important source of subsistence. The Chaco Indians obtain edible fruits from, inter alia, the algaroba (Prosopis alba), the chañar (Gourliea decortitans), the mistol (Zizyphus mistol) and the tusca (Acacia aroma). The rootstocks of the caraguatá, or chahuar (Bromelia serra), plant are used for food by these Indians, and the same applies to the pith of the fan palm (Copernicia australis). For pulling down within reach the fruit-bearing branches of trees, the Indians make use of wooden hooks with a short arm and a long one, the latter then serving as a handle, whilst the tree branch which is to be bent down, is hooked with the shorter arm of the implement.[1] In digging up the spiny caraguatá plants the Choroti use a forked stick.[2]

241 At the time of my stay among the Choroti, the part of the tribe with whom I was in touch carried on no other agriculture than the growing of pumpkins in a primi-

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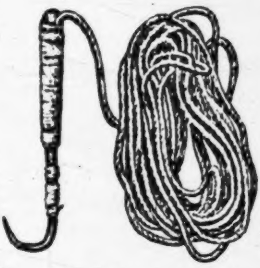

Fig. 119. Fishing hook of iron, with line of caraguatá fibre. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 238.

Fig. 120. Fish club of palo santo (Handle upwards). Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 87.

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[1] Nordenskiöld (11), fig. 3.

[2] Nordenskiöld (13), fig. 49.

C 241

tive fashion, and, according to Nordenskiöld and Karsten, such agriculture as the Choroti engage in, is still on a very inconsiderable scale. Nowadays, however, these Indians cultivate — although not to any great extent — the following plants, viz.: pumpkins, cucumbers, water melons, maize, beans, manioc, sweet potatoes, tobacco and cotton.[1] Their only agricultural implements consist of digging-sticks of hard, heavy wood, and a kind of paddle-like, wooden spades. A typical digging-stick is reproduced in fig. 27.

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It is probable that the Choroti originally had no other domestic animals than dogs, and the only tame animals I personally saw among this tribe were dogs and fowls. Those of the Choroti Indians who are living in the neighbourhood of the Pilcomayo possess, beside the animals mentioned, also sheep, goats, cattle, horses and cats. Sheep-rearing has now come to be of great importance to the Indians, who use the wool as material for mantles, fillets, etc.

C 231

As mentioned, the Choroti are a nomadic people. Their changes of location may be due to various circumstances.

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When pasture is exhausted in one place, they must look about for another; they move on to more profitable fishing-waters, or wander into regions that are rich in game and wild, edible plants. But there may also be other, and quite different, reasons for the Choroti's leaving their old abodes. In epidemics, when deaths are plentiful, it happens that the Choroti abandon their villages, and this they may also occasionally do if they are apprehensive of visits from whites (see pp. 47 and 48). In a first-rate monograph, Dr. Ragnar Numelin has exhaustively analyzed the causes governing the nomadic instinct in primitive peoples. As re-

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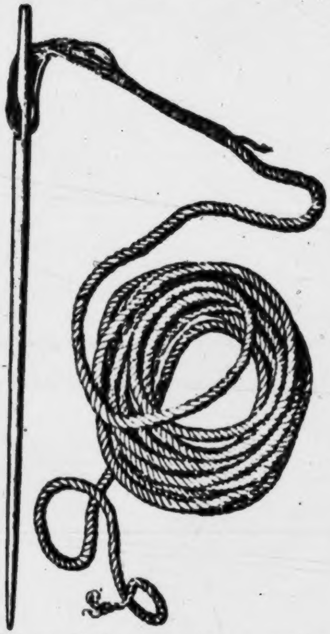

Fig. 121. Cord on which fish are strung by means of a large needle of hard, heavy wood. This kind of carrying-gear is very common among the Choroti. The specimen here reproduced originates, however, from the Toba (neighbours of the Choroti). Gran Chaco. Bolivia. ¹/₈. Riksm. 03. 3. 766.

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[1] Nordenskiöld (11), p. 29.

361 gards the Choroti, he, on Karsten's authority, mentions the interesting
166 fact that these Indians sometimes are compelled to make a change of dwelling-site only on account of the appearance of excessive swarms of noxious insects (principally locusts).[1]

484 It is only in later times that the Choroti to any greater extent have
464 come in to work on white men's sugar plantations. These plantations are mostly situated in Argentine territory, and therefore the Indians often have to make journeys of several weeks, in going to, or returning from, their place of work. Such Indians as go to the plantations only work for a few months for the whites, and then return to their own locations, there to spend the rest of the year in the wilds of the Chaco. Whilst at the plantations, they live in Indian villages they build for themselves, and in many ways carry on their primitive life.

166 I will also mention two other reasons for migration; now, however, only seldom obtaining among the Choroti, viz., fear of other Indian tribes and of reprisals for misdeeds committed against the whites. Concerning the latter cause for migration, I have already mentioned that a part of the Choroti tribe disappeared into the interior of the Chaco, after having in some way transgressed against white people who had settled in their country.

439 The Choroti Indians also engage in trading, and their chief article of barter is dried fish. In the Pilcomayo they are able to catch more fish than are required for their own consumption, and they therefore dry the surplus and take it to other parts, inhabited by Chiriguano and Chané, where fish is less plentiful. These latter Indians buy the fish by giving in exchange maize, red colouring-stuff (for face-painting) and other articles. Nowadays the Choroti also obtain iron, clothing, and other wares, by trading with the whites at the sugar plantations.

The snail-shell spangles that have been described in the foregoing are an important article of trade in the Chaco. The Choroti, according to their own stating, obtain spangles — separate, as well as strung into ready-made necklaces — from tribes living in the eastern Chaco. On Rio Parapiti Nordenskiöld has seen spangles of this kind among the Tapiete Indians, who told him they had got them by barter from the Ashluslay, and the latter that they, in their turn, had obtained them

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[1] Numelin (1), p. 35.

439 from a tribe they called Manslé, said to be living in the neighbourhood of Rio Paraguay.[1] Thus the spangles of which the Tapiete were in possession had, by way of trade between the tribes, been transported *at least* 360 miles from the place where they had been made.

436 Among the Choroti, the long spangle necklaces (as seen in fig. 56) served them as a kind of currency. So, for instance, the value of an Indian woollen mantle was expressed in a certain number of arm-lengths of such a necklace, and that of a head of cattle in some other, definite, number of arm-lengths. In gambling, the stake often consisted of snail-shell [525]
spangles or whole necklaces.

439 There were also other objects which formed articles of trade between the Indians. On page 81 I have mentioned a wooden comb which probably originates from the Chiriguano, and on page 78 I have reproduced a small wooden bowl containing colouring seeds that have probably come from the same tribe. The child's poncho, fig. 35, has probably been bought by some Choroti from an Ashluslay; it is also possible that a few other objects in my collection have found their way to the Choroti Indians through barter with neighbouring tribes.

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[1] Nordenskiöld (13), p. 127.

CHAPTER IV.

The Choroti (4). Food and drink. Household furniture.

Game used for food. Different ways of preparing, serving and eating the food. Preserving food. Salt. Water. Earthenware vessels. Bottles, boxes, dippers and spoons, made out of calabash shell. Wooden food dishes and spoons. Baskets. Large-sized bags of caraguatá fibre yarn. Carrying-nets. Men's handbags of caraguatá and wool. Cactus spines used as »Knitting needles». Distaffs. Weaving. Bast ropes. Knives, of iron, wood, and cane. Jaws of fishes, used as knives. Mussel-shell scrapers. Wooden saws. Bone awls. Fire-drilling.

262 Whilst on the subject of the hunting methods of the Choroti, I stated that those Indians look upon almost any kind of wild animal as being eatable, and that they even eat such, from a food point-of-view, repulsive animals as foxes, rats, vultures, owls, lizards and snakes. Certain insects, too, e. g., the larvae of a large beetle, and locusts, are used as food. The eating of foxes and vultures is not, however, practised by all Choroti. Nordenskiöld, for instance, says that foxes are by the Choroti considered useless for human food,[1] whilst Karsten numbers the fox among such animals as are eaten.[2] The latter, however, adds that vultures, owls and foxes are only eaten by elderly people who may be considered versed in the art of laying evil spirits. Therefore in the case of the Choroti, it would seem as, if the question of the edibility of any particular animal were largely dependent upon magical conceptions, so that anyone who is an expert exorcist may safely indulge in the eating of the flesh of any wild animal (see p. 97).

252 Meat may be roasted paled on skewers, or broiled on hot embers, or it may be boiled, and smaller animals, such as lizards, snakes and rats, are placed in the ashes that are on top of the glowing coals, without

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[1] Nordenskiöld (13), p. 53.

[2] Karsten (2), p. 32.

skinning or gutting, and are usually eaten with entrails, excrement and all. When the Choroti eat the entrails of larger animals, they do not first rinse them out, but are, at best, content with squeezing out the contents. Nordenskiöld has seen them eating intestinal contents as spinach together with the meat.[1] Fish is grilled, either by being laid on glowing embers, or tied between two sticks stuck into the ground by the fireplace. 252

As servers for food are used bowls of clay, wood, or calabash shell, or merely large, fresh leaves. 415

In foregoing chapters I have given the names of such plants, wild as well as cultivated, as are of importance in the food supply of the Choroti. Vegetables are eaten raw, boiled, roasted or dried. The Choroti, like other Chaco tribes, eat the fruits of the algaroba, and other similar fruits, in the following, rather original way. The raw fruits are put into a large wooden mortar (fig. 122), and there pounded up. The pulp is put into a calabash bowl, where it is stirred up with water, and the dish is then ready for eating. Those who are about to partake, squat down around the bowl, and each individual helps himself with his bare hand to the pulpy mass, which he puts into his mouth, chews and sucks, whereupon he spits his mouthful of mush back into the bowl. Another mouthful is taken, and in due course spat out, and so on. This is repeated by all the participants of the meal until all the sweet and nutritious components of the mess have been used up. What a bowl of »fruit cheese» is like, after half-a-dozen Indians have been eating and spitting for a while, the reader may possibly picture to himself, by the aid of his imagination.

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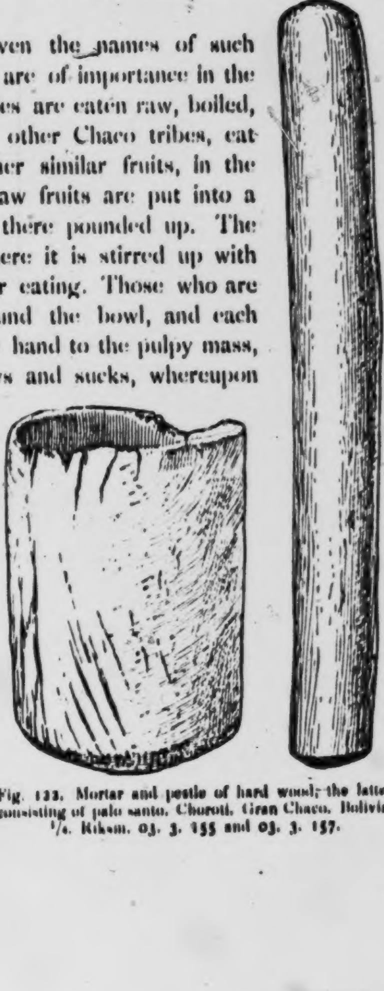

Fig. 122. Mortar and pestle of hard wood; the latter consisting of palo santo. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 155 and 03. 3. 157. 114
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In another work of mine I have said that the Choroti eat the *fruits*

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[1] Nordenskiöld (III), p. 53.

[2] v. Rosen, II.

114 262 of the chaguar (chahuar).[1] This statement, which is erroneous, is due to the similarity of sound existing between chaguar[2] and chañar.[3] The *fruits* of the latter are eaten by the Indians, whilst of the former only the rootstock is edible.

251 By drying, the Choroti preserve vegetables against seasons of shortened food supply.

263 Personally I have not seen the Choroti use salt, but, nevertheless, they possess this condiment. Possibly they, like the Lengua, extract salt from the ash of a plant growing on the Chaco.[4] Salt-making from vegetable ash is known to many primitive peoples.[5]

264 Among the Choroti I never saw men and women eating together.

[462] 515 252 The preparing of food is, as a rule, the work of the women. The Choroti are not dainty about their food, and the uncleanliness which is a distinguishing trait in culinary matters among these Indians surpasses almost anything I have ever observed among other primitive peoples, with the exception of the Mataco Indians. Of the latter, however, my experience is limited to only a few families, and it may be unfair to judge the whole tribes from those.

271 Water, often muddy, ordinarily forms the drink of the Choroti. When in the dry season the Indians are on the move, or from some reason or other find themselves far away from any river, they sometimes suffer very badly from lack of water.

273 In the season for harvesting wild fruits, such as algaroba, tusca, and chañar, an intoxicating fruit beer is brewed. During the time of year that I visited the Choroti, there were no fruits of which any intoxicating beverage could be brewed; consequently I never had an opportunity of observing either the brewing of beer, or any drinking carousal. This led me to suppose that the art of brewing fermented liquor was unknown to the Choroti. Nowadays the Choroti have learnt from the Chiriguano also how to brew maize beer. Of the Choroti method of beer-brewing, Nordenskiöld has given the following description:

»When tusca beer is to be made, the fruit is first of all ground, and they water added, the whole being thereupon left in a dirty animal hide.

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[1] von Rosen (3), p. 9.

[2] Bromelia serra.

[3] Gourliea decorticans.

[4] Hawtrey (1), p. 287.

[5] For one method of producing salt from plants, see von Rosen (4), p. 240.

273

or large calabashes, to ferment. One certain night. I was present at a beer-fermenting in a Choroti village. Proceedings commenced by two men sitting in the men's club house on either side of the fire, singing, with their backs to each other, and beating time with calabash rattles. After a while they continued this round about the hide in which the brew was fermenting. A man and a youth were singing, accompanied by a rattle, turning their faces up to the moon. Elsewhere, here and there, other men were bawling and plying rattles. Then the earthenware drum was brought out, and placed on a ring formed of straw. Monotonous drum beats thereupon gave accompaniment to the singing. This stopped about midnight, and there was a rush down to the river where some fishing was done, with a fairly good result. The fish was then grilled and eaten. This night supper having been satisfactorily discussed, singing was resumed and went on, supported by one drum and four rattles. The songs seemed to me to consist of nothing but refrains, something like: 'huh, huh, huh, huh, huh, lah eh lah, huh, lah eh lah, . . . huh, huh, huh, lah eh lah'. The singing was at first low, then suddenly rising in loudness, then again subsiding low. Many were raucously bellowing in unison. When one lot

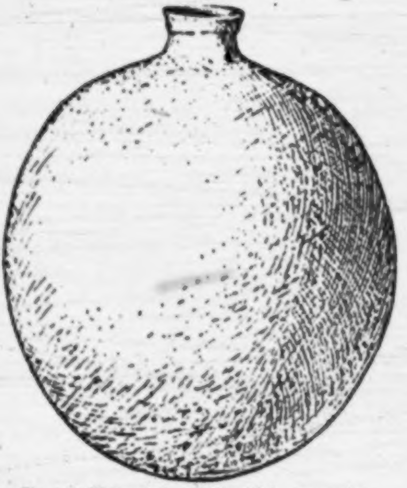

Fig. 123. Water pitcher. Yellowish brown earthenware. Choroti. Gran Chaco. Bolivia. $^1/_4$. Rikem. 03. 3. 145.

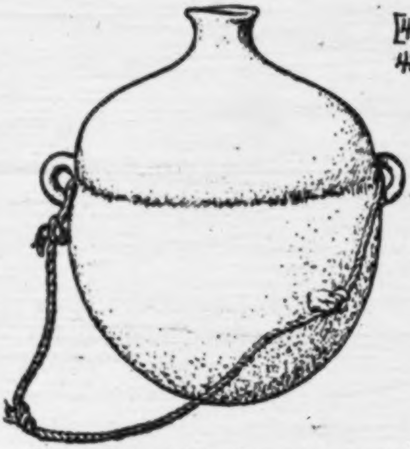

Fig. 124. Water pitcher with carrying cord of caraguatá. Reddish-brown earthenware. Choroti. Gran Chaco. Bolivia. $^1/_4$. Rikem. 03. 3. 146.

[415
482]

273 of singers were tired out, others took their turn. In the morning there was some more fishing, and for breakfast was drunk the tusca beer that had been made with so much trouble, after having been strained through a dirty bag, and served up in calabash bowls. The Choroti believe that by singing they hasten the fermentation of the beer.

The tusca beer is of an acidulous, refreshing taste, but has a sickly smell.

The fruits of the chañar are boiled, whereupon the mixture is allowed to ferment.

The fruits of the algaroba are ground, and warmed up in water, then, like the foregoing, the brew is left to ferment in huge, filthy, calabashes, or in very large troughs of the wood of the bottle-tree.[1] I have seen the Ashluslay preparing yeast by chewing part of the ground algaroba, and then spitting it out into the rest. Chañar beer is of a sour-sweet, somewhat nauseous, taste; algaroba beer is good. The latter has a sweet, somewhat astringent, taste. When long fermented, it is highly intoxicating. Maize beer I have seen brewed here. It is especially well known to a great many tribes in South America. It has a pleasant and refreshing taste.»[2]

271 When, during their wanderings, the Indians of the Chaco do not come across any rivers, lagoons or wells, and thus find themselves threatened by a lack of water, they collect the water that, after rain, has gathered at the base of the leaves of the caraguatá plant, where it will keep fresh for many weeks.[3]

271
415
482 The Choroti fetch and keep water in large, oval, sometimes spherical, earthenware vessels. When these vessels, like the one reproduced in fig. 123, are without handles, they are carried on the back by means of a caraguatá net, the carrying cord of which is either placed across the forehead or across the chest. Water pitchers are, however, as a rule provided with two vertically placed handles, and also a shallow groove which runs through the latter, the whole being designed to give a hold to the carrying cord (see fig. 124). The cord is rested across the forehead

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[1] Chorisia insignis.

[2] Nordenskiöld (13), pp. 89—91.

[3] Professor von den Steinen writes of the Chaco Indians of northern Chaco that they collect water from the caraguatá »in denen sich auf dem Grunde des Blätterkranzes das Regenwasser ansammelt und Monate lang verhältnismässig frisch erhält» von den Steinen (1), p. 326. See also Grubb (1), pp. 95 and 96.

or chest of the water carrier.[1] When the pitcher has been filled with 271 482
water, its mouth is closed with a stopper of grass or leaves.

The cooking pots, which consist of burnt clay (figs. 125 and 126), 415
are also used for roasting various vegetables. Pots of this kind from the 531
Choroti are sometimes given wart-like decorations. These are either placed 323
in rows some distance apart from each other (fig. 125) or in rows close together (fig. 126). This manner of ornamenting clay pots is of extreme antiquity in the New World, and occurs on grave finds right up through North America.[2] The little protuberances on the pot in fig. 125 have been produced in a different way to those on the handleless pot in fig. 126. On the case of the former, they consist of small clay pellets which have been stuck on the pot before burning, whilst the protuberances on the latter probably have been pressed up out of the wet clay by the potters fingers.

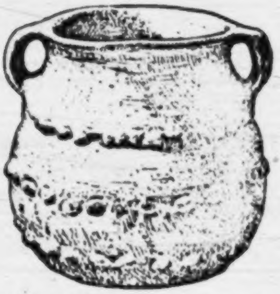
Fig. 125. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/5. Riksm. 03. 3. 150.

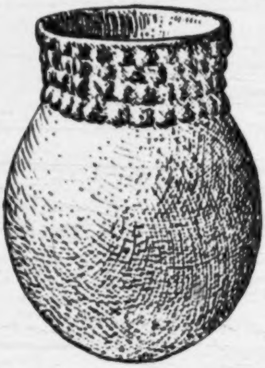
Fig. 126. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 4/5. Riksm. 10. 3. 54.

All pottery is made by women. The clay is mixed with powdered potsherds, 323
then well kneaded and formed with the hands into rolls, as thick as a finger, with which the pot is built up.[3] When this has been completed as to its shape, its surface is polished by means of a mussel shell or a

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[1] Water-drawing and carrying is exclusively a work for women.

[2] See, for example, Holmes (1), pl. XI, fig. g, and Moore (3), fig. 42.

[3] Cf. figs. 217 and p. 214. On the subject of Indian pottery-making, see for example Holmes (1), and Nordenskiöld (10).

323 smooth wooden stick, and, if desired, the above mentioned wart-like
[531] ornaments are then put on. Painted clay vessels are not found among the Choroti.

415
531 For holding water, beer, and other fluids, the Choroti use not only clay vessels but also calabash bottles. Small calabash bottles (figs. 127 and 128) are used for keeping toilet articles, such as colour seeds, beads, and other things. Such articles are also kept in boxes of calabash (fig. 129). Flour is kept in large calabash boxes (fig. 130). Of calabash shell are also made bowls or dippers (fig. 131), and spoons (fig. 132).

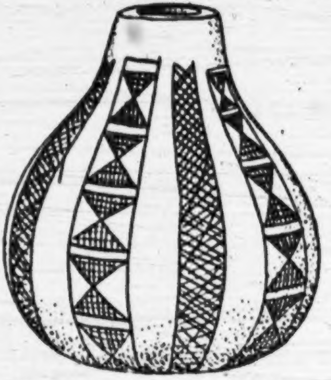

Fig. 127. Calabash bottle with incised ornament. Choroti. Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 172.

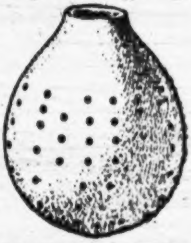

Fig. 128. Calabash bottle inlaid with turquoise coloured glass beads. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 175.

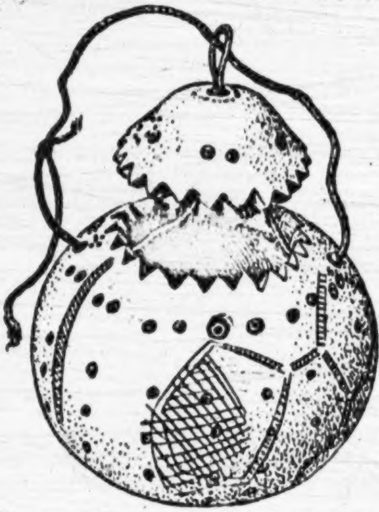

Fig. 129. Calabash box, inlaid with glass beads, and with carved ornament. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 67.

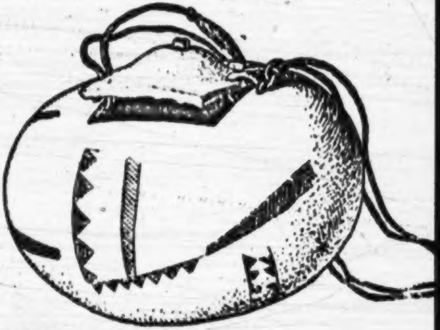

Fig. 130. Calabash box with carved ornament. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 176.

Bottles, boxes, bowls, dippers and spoons, of calabash, are often ornamented 415
in some way or other. Small calabashes (figs. 128 and 129) for toilet 531
articles are inlaid with beads, and on the latter there is also carved ornamentation. The bottle (fig. 127) and the box (fig. 130) have likewise been decorated by carving, but the ornamentation on the dipper (fig. 131) has been produced by burning. Occasionally ornamentation of calabashes has been effected both by carving and burning, an example of such composite technique being the spoon in fig. 132. The ornamentation is sometimes regularly arranged, figs. 127 and 132, but it often seems to have been placed without any plan whatever, as in figs. 129 and 131. According to investigations by Nordenskiöld and Karsten, the latter kind of ornamentation may not infrequently possess an especial significance; representations of human beings, animals, roads, fields, forests, and so on,[1] and its purpose is probably not only decorative but also magical.[2]

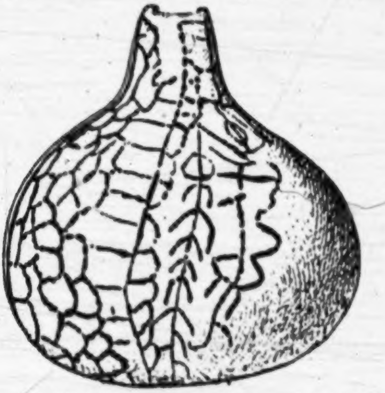

Fig. 131. Dipper, of calabash, with ornament burnt in. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 164.

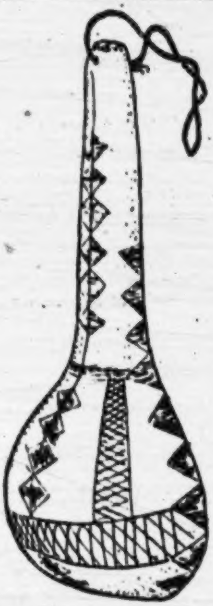

Fig. 132. Ladle, of calabash, with ornament both carved and burnt in. In the figure, the latter are shaded. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 166.

Many primitive peoples, in the Old World as in the New, use mussel- 415
shells for spoons. The Choroti have spoons consisting of one of the halves

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[1] Cf. Nordenskiöld (13), figs. 62 and 63.

[2] Karsten (8), p. 179.

415 of a river mussel (fig. 133). These mussel shell spoons are seldom as large as the specimen here reproduced, which has a length of 14 cm.

I have seen neither food dishes nor spoons, made of wood, among the Choroti, but nowadays, at least, such are used by them.[1]

285 Among the Choroti I saw only one single piece of basket work (fig.
415 134). It consists of a small basket of the same shape as a kind of pot, which is common in the Chaco (see cooking pot in fig. 192), and it is probably only a direct copy, made in sport, of a clay pot; otherwise, basketry is unknown to the Choroti, and it is therefore probable that the object in question has either found its way to these Indians from the Chiriguano, or that some Choroti, having seen basket-weaving in a Chiriguano village at some passing visit, subsequently has attempted to produce, some
[77] similar work himself. It should be noted that the weaving technique in the basket here reproduced is the same as the one used by the Chiriguano.

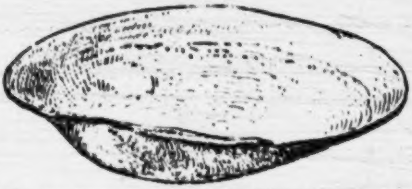

Fig. 133. Spoon, consisting of a mussel-shell. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 167.

286 The Choroti keep no inconsiderable part of their goods and chattels
415 in large, nearly oval, knitted bags of caraguatá yarn (figs. 135 and 136). These bags are especially useful when the tribe is journeying or migrating. They are carried by the women in such a way that the tape or string within the ends of the bag is placed across the forehead, whilst the bag rests against the carrier's back. The carrying cord over the forehead keeps the bag from slipping down the back. For carrying water pitchers and other vessels of earthenware or calabash, the Choroti use carrying nets. On page 118 I have described the way in which these are used.

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[482]

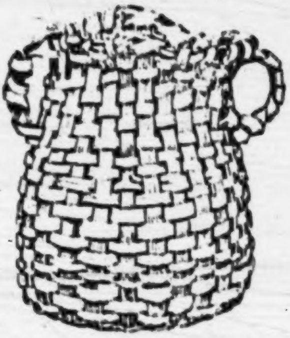

Fig. 134. Basket, Choroti(?). Gran Chaco. Bolivia. 1/2. Riksm. 03 3. 144

For everyday use the men have a kind of

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[1] Nordenskiöld (II), pp. 86—90.

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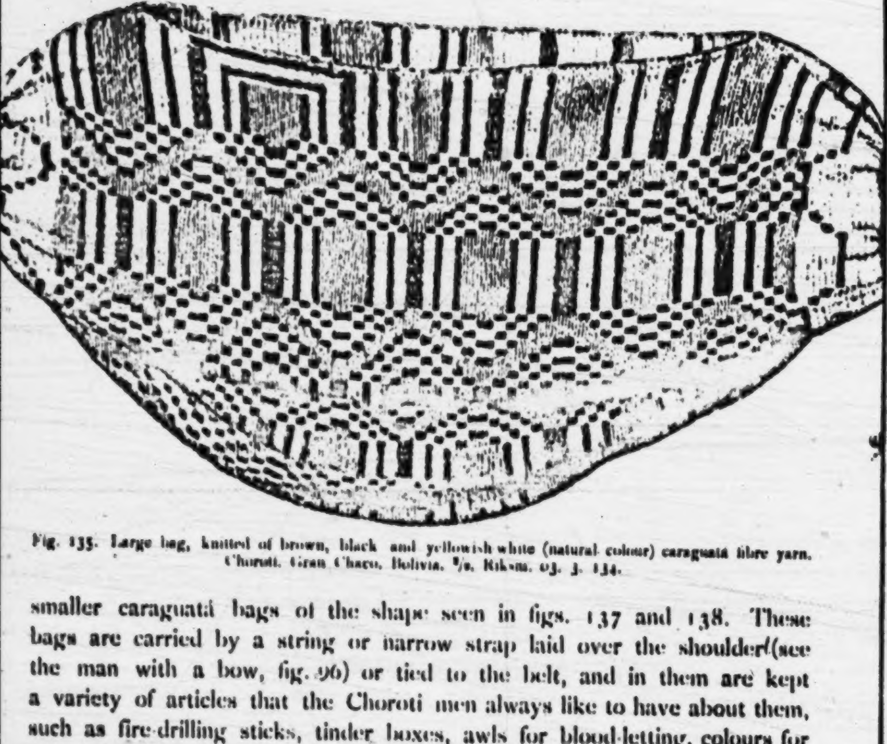

Fig. 135. Large bag, knitted of brown, black and yellowish-white (natural colour) caraguatá fibre yarn. Choroti. Gran Chaco, Bolivia. $^1/_8$. Riksm. 03. 3. 134.

smaller caraguatá bags of the shape seen in figs. 137 and 138. These bags are carried by a string or narrow strap laid over the shoulder (see the man with a bow, fig. 96) or tied to the belt, and in them are kept a variety of articles that the Choroti men always like to have about them, such as fire-drilling sticks, tinder boxes, awls for blood-letting, colours for painting of the face, etc. [482]

The caraguatá yarn is spun, without the aid of a spindle, only by twisting the fibres (of Bromelia serra) against the thigh with the flat of the hand. Some of the yarn is dyed with vegetable dyestuffs in order to produce variegated patterns in the knitting (see figs. 135—139). For the knitting, eyed needles of hard wood (fig. 140) are used. Similar needles of wood or bone are also used for sewing. Among the Choroti I have seen men's bags which had been knitted of woollen-yarn with long cactus spines, used as knitting needles (fig. 141). The woollen-yarn bag here reproduced is ornamented with red, brown and grey

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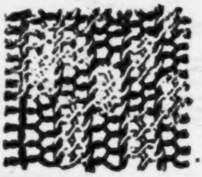

Fig. 136. Enlargement of the knitting of the bag in fig. 135.

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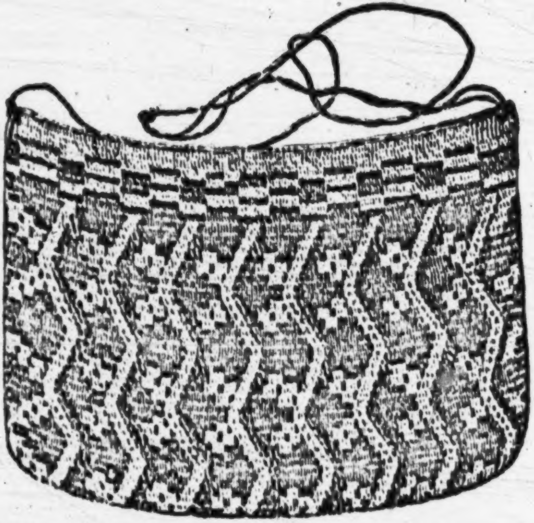

Fig. 137. Bag, knitted of brown, black and yellowish-white (natural colour) caraguatá fibre yarn. Carrying strap of rawhide, twined together. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 110.

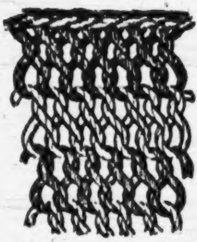

Fig. 139. Enlargement of the knitting of the bag in fig. 138. Twice enlarged.

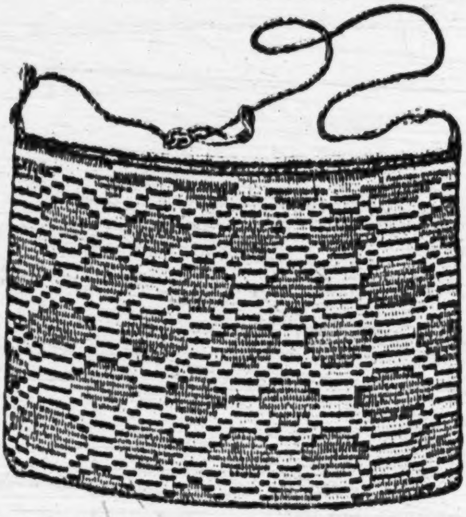

Fig. 138. Bag, knitted of brown, black and yellowish white (natural colour) caraguatá-fibre yarn. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 183.

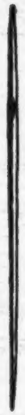

Fig. 140. Knitting needle, of wood. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 143 b.

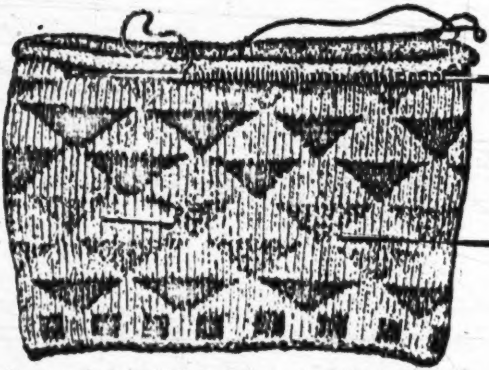

Fig. 141. Bag (unfinished), knitted of woollen-yarn, with two cactus spines used as knitting needles. The pattern consists of red, brown and grey triangles and squares on a greyish-white ground. Choroti. Gran Chaco. Bolivia. ¹/₈. Riksm. 03. 3. 143.

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Fig. 142. Distaff, with wooden spindle and a spherical whorl consisting of the hard shell of a fruit. Left-spun cotton yarn is wound on the spindle, near its middle. Choroti. Gran Chaco, Bolivia. ¹/₈. Riksm. 10. 3. 51.

Fig. 143. Distaff, with wooden spindle, and a plano-convex whorl of bone. Choroti. Gran Chaco, Bolivia. ¹/₈. Riksm. 03. 3. 140.

triangles and squares on greyish-white ground. It is probable that the Choroti have learnt the art of knitting through having been in contact with more cultured tribes.

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From their herds of sheep the Choroti obtain all the wool they need for manufacturing mantles, loin cloths, ponchos, fillets, bags, etc. Wool, as well as cotton, is spun with distaffs of the Bakairi type[1] (figs. 142 and 143). The spindles of the distaffs are of wood, with a small knob at the top end for fixing the wool. The spindle is always thinnest at the upper end, and increases in thickness downwards, attaining its greatest thickness not far from its bottom end. The spindle whorls consist of various materials, such as fruit rinds, bone, earthenware, etc. I have even obtained a Choroti distaff with a stone whorl (Riksm. 10. 3. 50), although this is a material which is extremely rare on the

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[1] For South American spinning implements and their classification see Frödin and Nordenskiöld (1).

283 Chaco, a circumstance I have pointed out in the foregoing. At its thickest part, the diameter of the spindle should be somewhat larger than the diameter of the hole through the whorl. The thinner end of the spindle is passed through this hole, and the whorl is then slid downwards until it gets fixed on account of the thickness of the spindle (see fig. 143). If the hole has happened to have been made too large, so that the whorl would slip off, the thickness of the spindle immediately below the whorl is increased by the application of a heavily waxed binding (see fig. 142).

286 Personally I have not seen the Choroti do any weaving, but from this tribe Nordenskiöld has described a very primitive method of fillet weaving: »For a loom, the woman used her own body; the fillet she was weaving was fastened to her big toe, and her hand she used as a batten. In this way she was weaving the fillet without using any other implement than her extremities.»[1]

For all that, the Chorotis[a] do possess weaving implements, which, among other things, is evident from the weaving batten reproduced in fig. 144. It is carved in one piece out of some hard, heavy wood. The transverse section of the handle is oval, and the blade has two rounded edges.

283 The Choroti make excellent ropes of bast (fig. 145), by twining. One such rope, which I bartered off them, is 11.74 metres in length. At one end of it there is a running noose, and it has probably been used as a lasso.

412 439 At the time when I visited the Chaco, iron was still of such rarity that it was but seldom I saw ~~an iron~~ knife among the Choroti. We had brought with us, as articles for bartering, long, Argentine knives, and with them the Indians were highly delighted. These knives were not used by the Choroti for carving wood with, but principally as carving instruments in cutting up meat.

Fig. 144. Knife-like weaving implement (batten) of hard wood Choroti. Gran Chaco. Bolivia. ⁰/s. Riksm. 10. 3. 91.

412 The Choroti knife, which is reproduced in fig. 146, is a very primitive tool, with a one-edged blade, about 1.5 mm thick, of untempered sheet-iron. The upper part of the blade is wedged into a partly cleft wooden handle, which is covered

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[1] Nordenskiöld (13), p. 111.

[a] [should be Choroti. -Analyst]

with the tail skin of a lizard. The blade and handle form an obtuse angle, and the edge has been ground on the outer side of the angle. This peculiar shape of knife corresponds to the shape of wooden knives that have been found in ancient Indian graves on Puna de Jujuy and in Quebrada del Toro.[1] 412 [172]

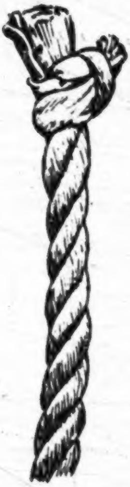

Fig. 145. Rope, of bast. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 244.

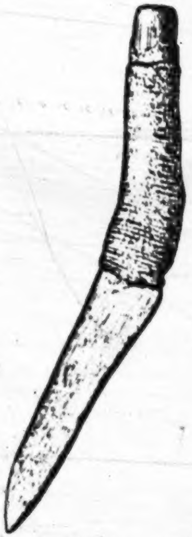

Fig. 146. Knife with one-edged blade of soft iron, and handle of wood, covered with lizard skin. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 189.

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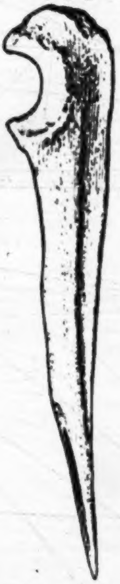

Fig. 147. Awl, consisting of the right ulna of some large feline, probably puma. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 183.

The Choroti also use wooden knives, resembling broad-bladed chisels.[2] Knives of this shape, which the Choroti now also make of iron, are principally used for cutting up fish, or for opening and dividing pumpkins, water melons, and other kinds of fruit. For cutting up meat, sharp-edged cane splinters, or — and nowadays most generally — iron knives, are used. As I have previously mentioned, the Choroti also use the sharp-toothed jawbones of the palometa fish (Serrosalmo sp.), as knives for hair-cutting, fig. 84. [237]

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[1] See, for example, von Rosen (10), figs. 59, 127–131.

[2] Nordenskiöld (11), figs. 12 and 13.

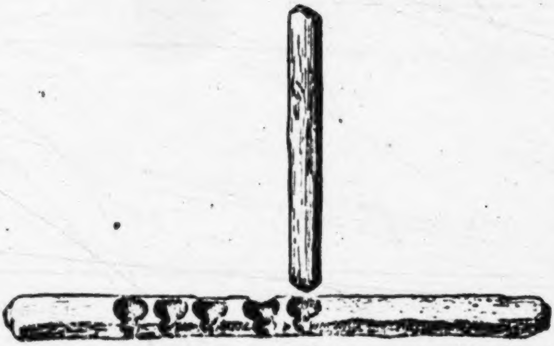

Fig. 148. Fire-drilling implement, consisting of two wooden sticks. Choroti. Gran Chaco. Bolivia. $^1/_3$. Riksm. 03. 3. 193.

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[372]

For scraping and polishing wooden objects, pieces of mussel-shell are used. Formerly, when the Choroti could not obtain iron, all woodwork was produced exclusively by means of fire and mussel-shells. In shaping a piece of wood, the parts that were to come away were burnt in the fire, and the charred parts then scraped off with a sharp-edged piece of mussel-shell.

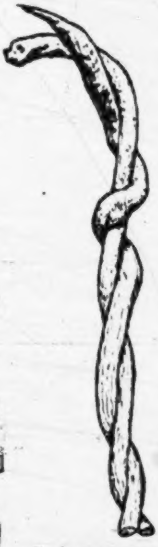

Fig. 149. Stems of a liana (Asclepiadaceæ), which forms the material of which fire-drilling implements of the Choroti generally are made. Gran Chaco. Bolivia. $^1/_6$. Riksm. 03. 3. 196.

C
[412]

Nordenskiöld mentions that the Choroti, in the same way as other Chaco tribes, use saws made of hard wood with which they, among other things, saw off the stem and leaves of the, to the Indians so important, caraguatá plant,[1] after having grubbed it up with a fork-like digging stick.

C
[412
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Awls for working purposes are made of bone (fig. 147). Bone awls are also used for tattooing (see p. 75, 78), magical blood-letting (see pp. 63 and 64), and as weapons of offence (see p. 101).

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M
[372
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Like other Chaco tribes, the Choroti produce fire by drilling. Their fire-kindling implement consists of two round-sectioned, dry sticks of wood (fig 148), usually obtained from a species of liana (of the Asclepiadaceæ), fig. 149. One stick (the female one), which is thicker, and usually longer, than the other one (the male stick), has one or more bowl-shaped indentations, at

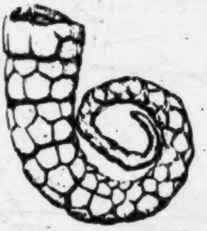

Fig. 150. Tail of armadillo, used as a tinder box. Mataco. Gran Chaco. Argentina. Exactly similar tinder boxes are used by the Choroti. $^2/_3$. Riksm. 03. 3. 572.

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[1] Nordenskiöld (11), pp. 65 and 66, also (12), pp. 110 and 111.

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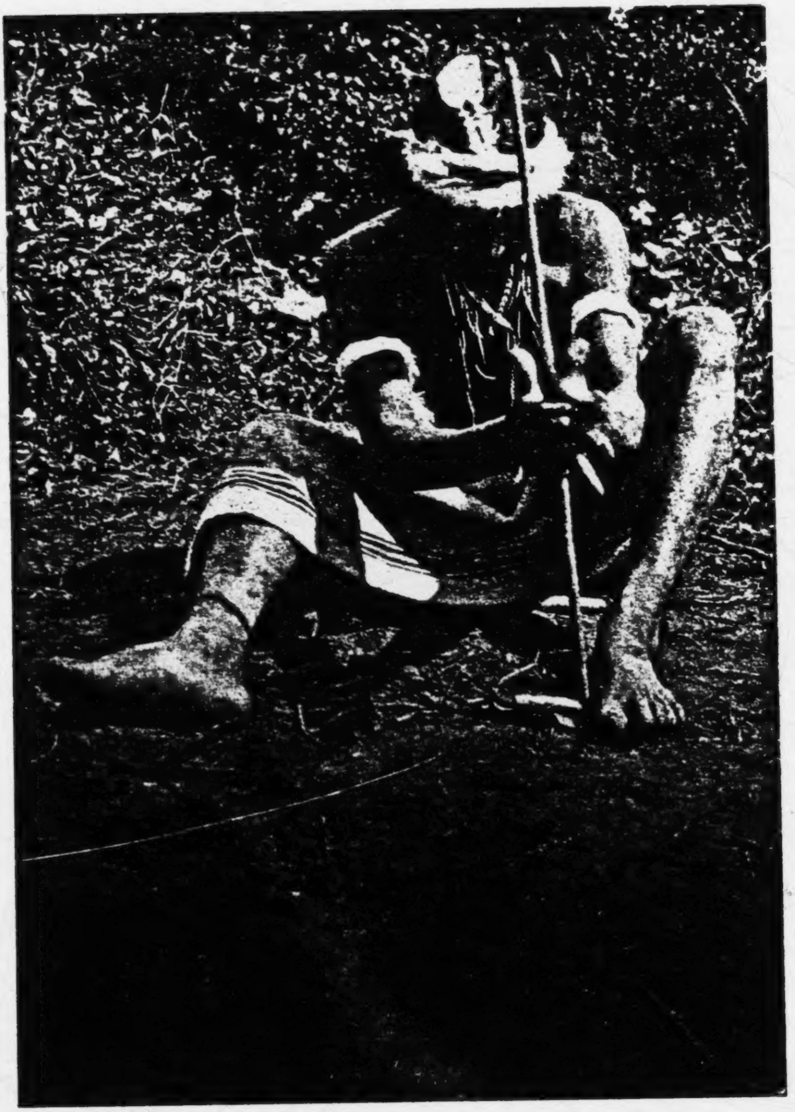

Fig. 151. A Choroti man producing fire by drilling. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 130 is blank]

the edge of which a groove has been made (see fig. 148). These indentations are of a diameter roughly corresponding to that of the male stick.

When about to produce fire by drilling, a Choroti first pulls the head out of one of his arrows, and fits in its place the male fire-stick into the arrow-head hole of the arrow shaft. Then he spreads on the ground a thick, dry leaf, or a piece of skin or cloth. On this underlay he places the female stick, indentations upwards. In front of one of the indentations he puts a pinch or so of tinder consisting of charred caraguatá fibres, which he takes out of a tinder box which may be the tip of a deer antler or the scaly tail skin of an armadillo, fig. 150. He then sits down on the ground, in a squatting position, gets a firm pressure with his left foot on the female stick, carefully places the male stick, that is fixed in the arrow-shaft, into one of the indentations in the other stick, and twirls the arrow-shaft vigorously between his palms (see fig. 151). He starts the twirling at the upper end of the shaft, but as he, at the same time, exercises a downward pressure, his hands by degrees slide groundwards, and therefore he has, with a lightning-quick movement, to shift his hands, now and again, to the top.

The friction between the male and the female stick grinds the wood into a fine powder, which very soon begins to smoulder, as will be noticed from the smoke then rising from the drill hole. The glowing wood powder makes its way along the groove at the edge of the hole and on to the tinder, which also soon begins to glow. Dry grass is put on top of the tinder, and this is blown on until the grass catches fire.

This method of producing fire undoubtedly sounds very laborious, but it is remarkable how quickly the Choroti are able to kindle a flame, if only the sticks, tinder and grass are thoroughly dry. Once I have seen a Choroti drill fire in 30 seconds, and on many occasions I have witnessed how South American, as well as African, natives succeeded in producing fire in less than one minute by drilling.[1]

If the weather is damp, or if the fire-kindling implements are not quite dry, it is of course fairly difficult to drill for fire. Then the best plan is to have an assistant who begins the twirling at the top end of the arrow-shaft as soon as one's own hands have slid down towards the ground. When the hands of the helper are at the low position, one starts again

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[1] Cf. von Rosen (4), pp. 241–245, plate 75.

372 at the top, and by thus taking it by turns, the male stick is kept in continuous motion, until the wood powder begins to glow.

It is the work of the men to kindle the fire by drilling, but the women are charged with the responsibility of seeing that it does not go out unnecessarily. In order to keep cinders glowing during the night, or at other times when a flame on the hearth is not required, the women place on top of the fire dry, decayed tree stumps, which they cover with ashes, by means of which the stumps keep smouldering for a very long time. It is then easy, when required, to produce a flame by blowing [415] on, or fanning, the cinders. The fire-fan consists of feathers. Fig. 152 shows a young Choroti girl whilst carrying out her vestal duty of preserving a fire.

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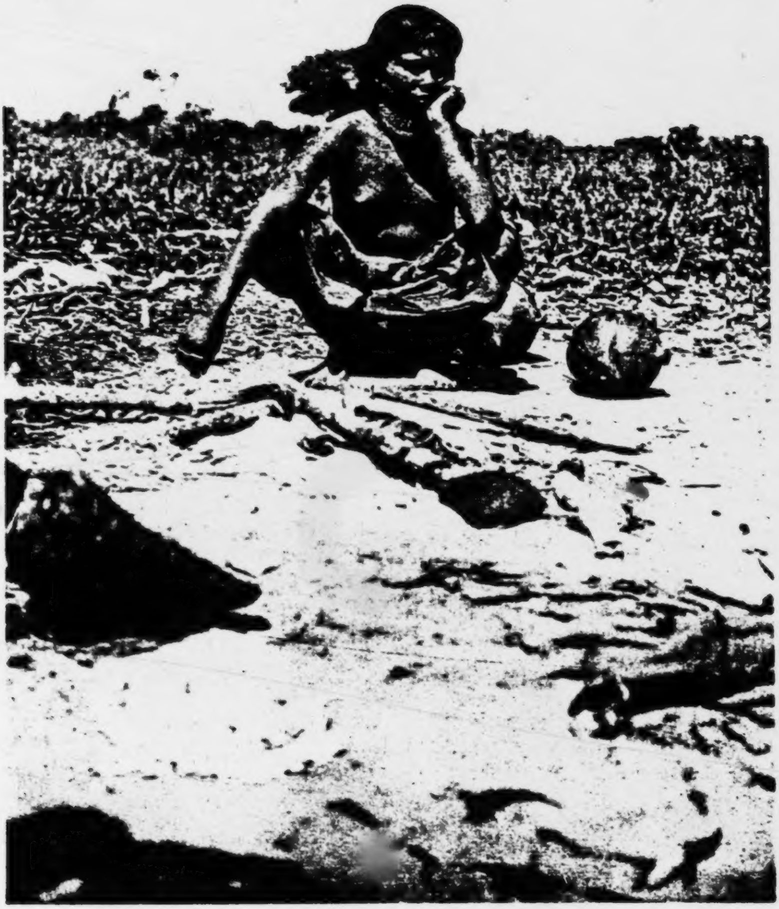

Fig. 152. A Choroti girl who has put decayed tree stumps on top of the fire in order to preserve it until again needed. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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CHAPTER V.

The Choroti (5). Narcotics and Intoxicants. Games and amusements.

Differents kinds of beer. Drinking customs. Tobacco smoking. Flutes and whistles. Trumpets. Music bows. Drums and drumsticks. Rattles. Dancing. Gambling games. Various kinds of ball games. Toys. Pastimes.

Beer and tobacco form the intoxicants and narcotics in which the 273
Choroti indulge.

As I have pointed out in the foregoing, I never had an opportunity of witnessing how the Choroti brew their intoxicating beverages, which they prepare from divers kinds of wild fruit. During the time of my visit to the tribe, such wild fruits were not ripe, so the Indians were reduced to drinking water, more or less muddy. Had my visit coincided with the fruit-harvesting season, then I should have seen that the Choroti are great lovers of beer. Baron Nordenskiöld, who is thoroughly conversant with the beverages and the drinking customs of the Choroti, has shown that the beers that these Indians make from tusca, chañar and maize are tolerably innocent, whilst, on the other hand, algaroba beer is strongly alcoholic, owing to the algaroba fruit being very rich in sugar.[1] The Choroti also make beer out of water melon, but in the literature I have not seen any statement as to the intoxicating properties of water melon beer.

The Choroti's drinking customs Nordenskiöld describes as follows: »During the months of November and December, when the fruit of the algaroba is ripe, there are in consequence in the villages of the Choroti mad drinking carousals, daily orgies, in which the hapless ethnographer

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[1] Nordenskiöld (18), p. 89.

273 has to take part if he wishes to keep on good terms with the Indians. — ›Among the Ashluslay I have taken a hand in several large-scale drinking carousals, and among the Choroti in some smaller ones. It proved an interesting experience, but it required a great deal of fortitude to be able to go through with it. In most villages there is a special [361] place set apart for drinking. There the men begin to foregather about noon, each man bringing his sitting mat and his calabash bowl of a capacity of two to three litres. Huge calabashes of beer are brought by the women. Sometimes the beer is decanted into a large earthenware vessel, out of which it is served. At a festivity where old man Aslù was the host, algaroba beer was handed round to the guests in a genuine European [276] night-chamber, of well-known shape. What lees or dregs there may be in the beer receptacle, the partakers simply fish out with their hands, and then strain between their filthy fingers.

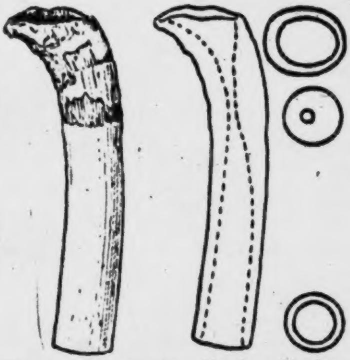
Fig. 153. Tobacco pipe of bamboo. The figure shows the mouthpiece turned downwards. Choroti. Gran Chaco. Bolivia. $^{1}/_{2}$. Riksm. 03. 3. 228.

›A guest, especially if he has the [574-579] misfortune of being very popular, is very well treated. He is provided with a sitting mat and a calabash holding two or three litres. When he sits down, all wave to him with the flat of the hand, and he must make a similar response. That constitutes the greeting of welcome. After that, it is a matter of drinking, for here the motto is 'no heeltaps', and one must not be uncivil. When one has managed to get a litre down, without throwing it some more the palm-waving is done. The old men sitting next to one, draw their more or less dirty fingers across one's mouth. This is the height of friendliness. If, after all this, one has to run away for a moment, one must by no means forget to wave the hand to one's neighbours and say 'paa', for if not, one is exceedingly unmannerly. The worst of it is that one must come back, and hold out, right through the feast even, whilst one's hosts are drunk and yelling, making speeches, spitting in the festive bowl, and generally feeling them- [276] selves good and hearty. Without giving a wipe to the pipe-stem, one has to smoke, turn and turn about, with dirty, slavering, old men.

»When the old men have felt themselves properly tuned up, then they 273 have painted my face black with soot and spittle. They have wanted to 574 pull out my eyebrows and eyelashes, and they have laughed my long and ugly beard to scorn, and they have wanted to bore through my ears.

»All during these drinking carousals, when everybody was drunk, I have never heard a hard word spoken; never noticed the slightest quarrel arising. When the Indian is full of his home-brewed beer, he is not pleasant, [578] but he does not get insolent; he belongs to the type of drunkard who wants to embrace everybody, and in whom the manifestations of friendliness become unpleasantly exaggerated. He gets blatantly valiant, and shouts about warlike deeds. He discusses plans of campaigns, but has forgotten all about it when he is sober again. He sings and he is happy.»[1]

The Choroti Indians are inveterate smokers. As the tobacco which 276 these Indians grow and prepare is of a very inferior quality, they are [439] keen on bartering tobacco off the whites. Frequently the Choroti mix their tobacco with shavings of an aromatic tree bark.[2]

Tobacco pipes consist of pieces of bamboo, fig. 153, or wood, figs. 154—161. The latter are straight, that is to say, the longitudinal axis of the tobacco retainer is in a straight line with the longitudinal axis of the stem.[3] The pipes of bamboo are straight, or of a slightly curving bend, fig. 153. Choroti pipes are as a rule made in one piece, figs. 153—161, but composite pipes (pipes with the stem fitted into the bowl) do occur, although they are exceedingly rare.[4]

The pipes have in the forward end, as a rule, a funnel-shaped depression in which the tobacco is stuffed (the tobacco retainer). From the bottom of the funnel the smoke passes through a channel, the diameter of which is only a couple of millimetres in the part nearest the tobacco retainer but usually widens towards the opening of the mouthpiece (see sections, figs. 153—161). In pipes with a wide mouthpiece opening, the latter as a rule is provided with a vegetable fibre filter, which cleanses

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[1] Nordenskiöld (18), pp. 89, 91 and 92.

[2] As to Indian conceptions of intoxicating beverages, tobacco and other narcotics, see for example Karsten (6), pp. 28—72.

[3] The Ashluslay, neighbours of the Choroti, possess both straight and angle-bent pipes. In the Ashluslay pipes of the latter kind the longitudinal axis of the tobacco retainer and that of the stem form an angle of about 90 degrees. Nordenskiöld (18), figs. 41—43.

[4] A composite pipe from the Choroti is reproduced and described by Nordenskiöld (21), fig. 8.

276 [531] the smoke of tobacco oil. Wooden pipes are often decorated with burnt-in ornament (figs. 155—157 and 159—161), or, once in a while, with carved ornamentation (fig. 161), or mountings of tin.

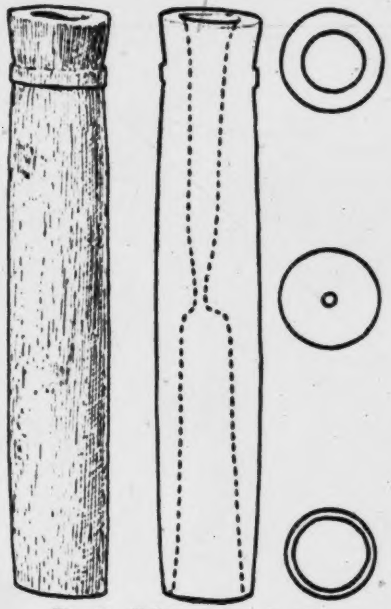

Fig. 154. Yellow wood. 03. 3. 219.

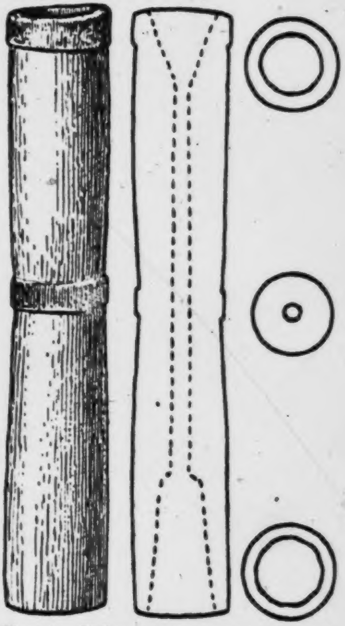

Fig. 155. Yellow wood; the rings carved in relief are coloured dark by burning. 03. 3. 224.

Tobacco pipes of wood. Choroti. Gran Chaco, Bolivia. 3/8, Riksm.

The straight type of pipe much resembles our modern cigar holders, but is nevertheless an ancient American cultural element. Straight tobacco pipes are found in widely separated parts of the New World, and in archæological excavations in North America, pipes of this kind have been found of burnt clay, among other materials, which probably are pre-Columbian.[1]

276 517 The Choroti Indians never smoke whilst working, or otherwise moving about, but keep this form of indulgence for their sociable talks, their meetings, or drinking bouts. No Choroti, when in company with others,

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[1] E. g. Holmes (1), pl. CLVI. For the distribution of the straight tobacco pipe in North and South America, see, for example, McGuire (1), and Nordenskiöld (21).

[text continues on p. 140]

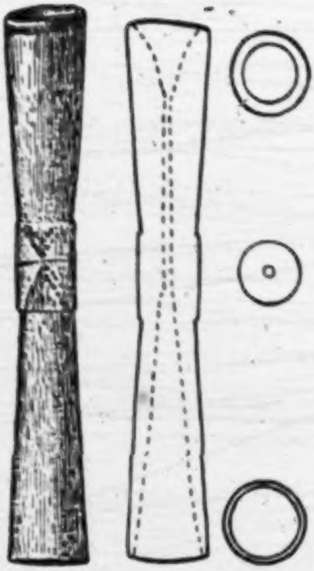

Fig. 156. Reddish-brown wood. Ornament burned in. 10. 3. 143.

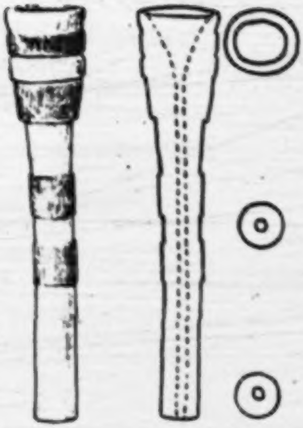

Fig. 157. Yellow wood. Four bands carved in relief, burned dark brown. 03. 3. 226.

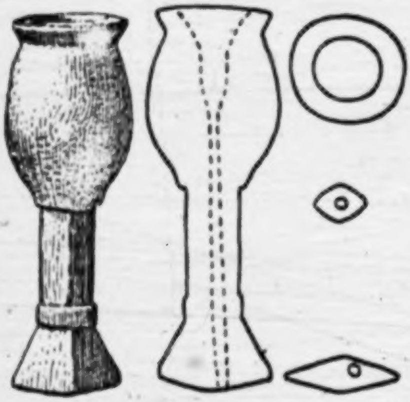

Fig. 158. Yellow wood. 03. 3. 229.

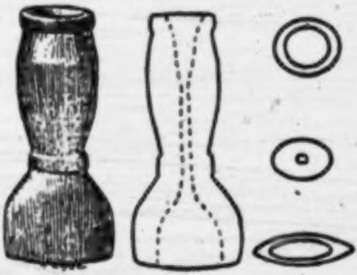

Fig. 159. Reddish-brown wood; the relief carved rings are darkened, by burning. 03. 3. 230.

Wooden tobacco pipes. Choroti. Gran Chaco. Bolivia. ½. Riksm.

276 517 smokes his pipe alone, but lets it pass, by turns, from mouth to mouth. Similarly to other primitive peoples, the Choroti not only take the smoke into their mouths, but also inhale it into their lungs, a method of smoking which apparently gives them great satisfaction.

534 The Choroti are only indifferently gifted for music, and their musical instruments are exceedingly primitive. These consist of flutes and whistles of bone, whistles made from skulls, disc-shaped whistles made of

[276 531]

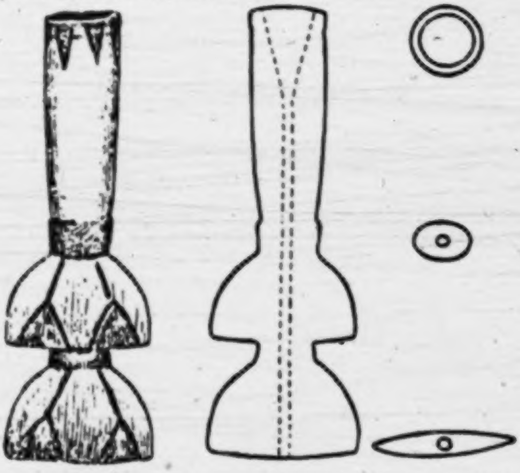

Fig. 160. Yellow wood. Ornament burned in. Riksm. 03. 3. 231.

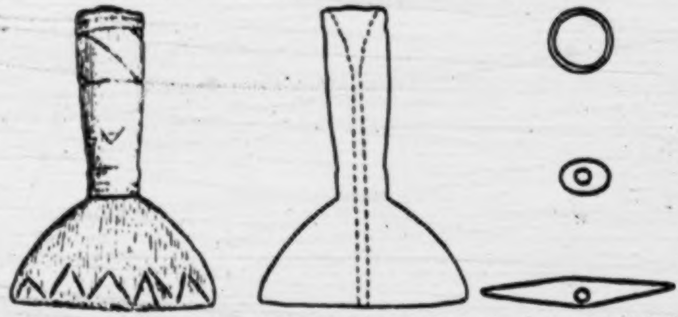

Fig. 161. Yellow wood. The ornament on the mouthpiece and a ring round the mouth of the bowl are burned in. The mark resembling an inverted letter A is carved. The lower ring on the bowl, and the lines that are obliquely issuing from it, are carved and painted red. 03. 3. 232.

Tobacco pipes of wood. Choroti. Gran Chaco. Bolivia. 1/2. Riksm.

wood, music bows, drums, rattles made of calabash, and dancing rattles 534 consisting of animal hoofs. Latterly the Choroti have also taken up the use of a kind of cow-horn trumpet with a mouthpiece of reed.

The reed flutes bear a great resemblance to the ancient Peruvian [171] flutes, although the latter as a rule are of bone. Like most Choroti flutes, the one depicted in fig. 162 has a notch cut in the edge at the opening of the mouthpiece. This detail is also found on many ancient Peruvian flutes.[1]

Mead writes of the latter that they consist of one-piece tubes of reed or bone, open at both ends, and that they belong to the kind of flutes that are called »end-blown». They are blown at the end where the notch has been cut, with the lower lip against the part of the edge which is diametrically opposite the notch. According to Mead, the notes are produced by the air current, in blowing, passing across the mouthpiece opening and striking the sharply cut, opposite, edge of the flute-mouth (i. e., at the notch); this sets up vibrations in the air column within the tube. It is well known that the note which is given off by a flute depends upon the length of the vibrating air column within the flute. For varying the length of the air column, the ancient Peruvian flutes are provided with holes, from three to seven in number. All attempts at discovering any system relating to the distances between these holes have failed. One is reduced to supposing that the flutemakers among the ancient Peruvians placed the holes in a more or less arbitrary way. The fact of the tones producible on flutes of this kind generally not forming any correct scale, is not to be wondered at when one considers the difficulties a modern maker of flutes has to overcome in order to produce a perfect flute.[2]

Open-ended bone flutes of the same kind as the ancient Peruvian [171] ones, are known from, among other tribes, present-day Brazilian Indians dwelling on the banks of Rio Tiquié and Rio Caiary-Uaupés. About these instruments Koch-Grünberg writes that: »at the upper edge of the mouthpiece a square or semicircular notch has been cut out. The flute is pressed against the lower lip, and one blows obliquely into its mouth. These flutes have three, or, more seldom, four, finger holes.»[3]

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[1] E. g., Engel (1), fig. 18, a, b, c, and Mead (1), the fig. on p. 14, and also plate V, figs. 1, 2, 3, 7, 8, 9, 12, 15, 21, 22, 23.

[2] Mead (1), p. 14 et seq.

[3] Koch-Grünberg (3), p. 303.

534 What has above been said concerning the construction and the way of blowing on ancient Peruvian, and Brazilian, flutes, applies in every particular to Choroti reed flutes of the type seen in fig. 162.

With whistles of the construction shown in fig. 163, different tones may naturally be produced by opening or closing the three round holes made through the side of the instrument at its lower end. At its upper end the opening is partly closed with wax. This particular whistle is blown in the same way as our ordinary whistles. Some closed Choroti reed whistles are only provided with one hole, usually semicircular, near the opening of the mouthpiece, and are thus without any holes by which different tones can be produced.

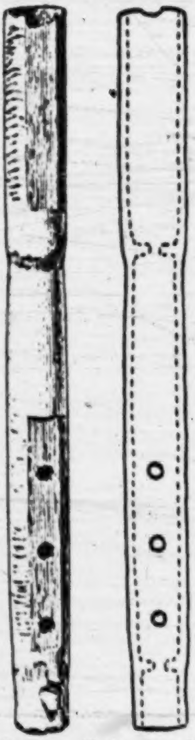

Fig. 162. Flute, of reed. Incised ornament. Choroti. Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 208.

[531 237]

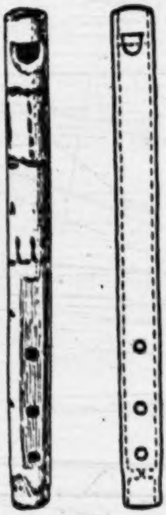

Fig. 163. Whistle, of reed. Ornament burned in. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 210.

Fig. 164. Whistle, of a bird bone. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 212.

534

In previous works on the Indians of the Chaco, there is to my knowledge nothing said about the Choroti possessing whistles made of bone. These Indians do, however, use such whistles, which are made of bird bones (fig. 164). These whistles are open at both ends, so that two notes can be produced; if one closes the lower end of the whistle with the finger, one naturally obtains a note differing from the one given by the open whistle. In the bone whistles, the blowing-end is partly stopped up with wax.

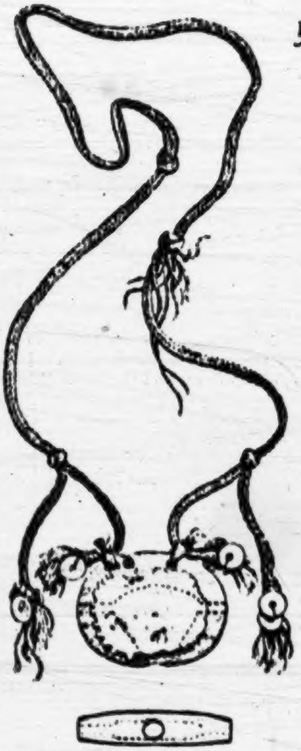

Fig. 165. Disc-shaped, wooden whistle; on one side mounted with a piece of tin, the other side unmounted. On the figure, the dotted lines mark the boring. This object is meant to be worn as a breast ornament string round the neck. The carrying string consists of red, woollen yarn, and is decorated with a few snail-shell spangles. Choroti. Gran Chaco, Bolivia. ½ s. Riksm. 03. 3. 214.

Fig. 165 shows a remarkable type of whistle, which is very common in the Chaco. This whistle consists of an oval, flat piece of wood, bored through in the way seen from the figure. On one side it has a sheeting of tin, which originally had a serrated edge all round, like a cog-wheel. Most of the teeth are, however, worn away, but on the left half of the mounting the serrations are almost intact. The mounting is set on the wood by means of some waxy substance. The reverse side of the disc is without any mounting or other ornamentation. For carrying this whistle there is a plaited cord of red, woollen-yarn, which is decorated with a few snail-shell spangles. The object in question is evidently very old, as one of the holes which originally served for fastening the carrying cord has become useless through the cord having worn through the wood, which is of very great hardness, in the way seen from the figure. A new hole for the cord has therefore had to be bored. Oval whistles of this kind, ornamented on one side, are worn as breast ornaments by most Choroti, and are also found among the [171 301] Ashluslay, Chané, Chiriguano, Churápa, Lengua, Mataco, Tapiete, Toba and Yuracáre.

534 and Yuracáre. Outside the Chaco, and the regions bordering on it, this
type of whistle has not, so far, been found.[1] It is noteworthy that, generally
speaking, these whistles have been given a similar, very characteristic,
ornamentation. It is only such whistles as originate from the Yuracáre
that form an exception from this rule.[2] The ornamentation, which is usually
carved in the wood, in low relief, consists of a figure more or less
[531] resembling a cogwheel, with a wheel-cross in its centre (fig. 166). Such
whistles as have a tin mounting are sometimes without the wheel-cross
(see fig. 165).

789 This ornamentation is probably of some magical significance.[3] For the
534 fact is that these disc-shaped whistles are not only a combination of
531 ornament and musical
301 instrument, but they
are also put to magical use. Karsten relates that the Choroti
Indians, whilst performing their exorcismal dances, now and
then blow their disc-shaped whistles to
scare off evil spirits.[4]
In a monograph on whistles I have endeavoured to show that the practice of carrying ornamental whistles is of remote antiquity in America, and I think I have adduced very strong evidence of the so called »mesh-spacers» of antler or polished stone, that have been found in graves in North America, being, as a matter of fact, used as ornamental whistles, and possibly of a magical character.[5]

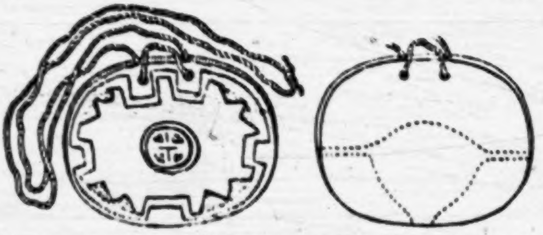

Fig. 166. Disc-shaped, wooden whistle, one side with carved ornaments, the other side plain. Used like the whistle in fig. 165. Choroti. Gran Chaco, Bolivia. 1/2. Gothenburg Museum. D. 793. From Nordenskiöld (11), fig. 56.

534 The disc-shaped Choroti whistles are blown at the lower aperture (see figs. 165 and 166), and with the same technique in blowing as described in connexion with the description of the flute in fig. 162. By the closing

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[1] Nordenskiöld (11), pp. 188 and 189.

[2] Nordenskiöld (11), p. 188.

[3] Of the wheel-cross having been, and still being, also in America the characteristic symbol of the sun, we possess reliable proof. See e. g. Frobenius (1), fig. 298. Cf. also d'Alviella (1), pp. 76 and 77; and Holmes (1), plate XXXVIII.

[4] Karsten (1), pp. 34 and 35.

[5] von Rosen (8), p. 114 et seq. and Gustaver (1).

of one, or both, holes which are at the side edges of the disc whistle, 534
different tones are obtained, and if both the side holes are open, the whistle renders a third note.

A primitive type of whistle found among the Choroti, one which I have not myself seen, consists according to Nordenskiöld of the skull of some small animal, in which all apertures have been stopped up, with the exception of the *foramen magnum*.[1] The instrument is blown on by way of this orifice in the same way as are the flutes and disc whistles. Koch-Grünberg has reproduced and described two whistles made out of (nose-bear?) skulls (Nasua sp.) from the Kobé Indians on Rio Cuduiarý, and one whistle consisting of a deer skull (Cervus rufus) from the Tukáno on Rio Tiquié.[2] These cranium whistles are partly plastered over with pitch, but the basal, and nasal, orifices are left open, whilst the cranium whistles described from the Choroti by Nordenskiöld only have the *foramen magnum* left open. Hence the former can be used both as open and as closed whistles, and consequently can produce two notes (and eventually their harmonics), whilst the cranium whistles of the Choroti are only capable of one note (with a possible harmonic). I do not consider it improbable that certain, very singular-looking Old Peruvian whistles of earthenware or stone constitute forms of development out of the primitive cranium whistle.[3]

The cow-horn trumpets that Nordenskiöld has seen among the Choroti [177]
are certain to be post-Columbian cultural elements, seeing that there were no cattle in America prior to the invasion by the whites. In these trumpets the mouthpiece consists of a reed, and the tone is produced by means of a reed splinter, which is cut out, and which, when the horn is blown, vibrates in the same way as the metal tongue of an ordinary toy trumpet.[4]

Nordenskiöld has seen music bows among the Choroti, but no instrument of that class has yet been described from that tribe, and as I personally got no opportunity of seeing a Choroti playing on a music bow, I am not in a position to describe the ma[illegible] in which the instrument in question is played among these Indians.[5]

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[1] Nordenskiöld (11), p. 187.

[2] Koch-Grünberg (3), pp. 302—304.

[3] See for example Mead (1), pl. IV, fig. 8; Joyce (1), p. 73 and plate VI, figs. 1 and 3; Jijón y Camano (1), pl. XVII, XVIII and XIX; von Rosen (1), pp. 378 and 379, and fig. 356.

[4] Nordenskiöld (11), fig. 50.

[5] For the occurrence of music bows in South America, see: Bolinder (2), Nordenskiöld (12), pp. 80 and 84; (11), pp. 176 and 177, and (1), p. 15.

534 174 When pointing out that Gustav Bolinder saw music bows being used among the Busintana Indians of the mountain regions of northern Columbia, I made the following statement concerning the occurrence of this instrument in South America: »This music bow (the Busintana one) is almost exactly of the same kind as those in use among many African peoples. But, as we know, peoples who are widely separated from each other may, however, independently of each other make similar inventions. In this particular case there is, however, an additional circumstance which lends it an especial interest. The music bow is by the Busintana called 'marimba', a name which also in Africa is given to primitive musical instruments. 'Marimba', 'myrimba', 'marimbo' and 'kirimba' are words which occur in a great many Bantu dialects throughout Central Africa, and in every case signify musical instruments. In view of this fact, I think it not improbable that the use of the marimba was introduced into South America by slaves imported from Africa.»[1]

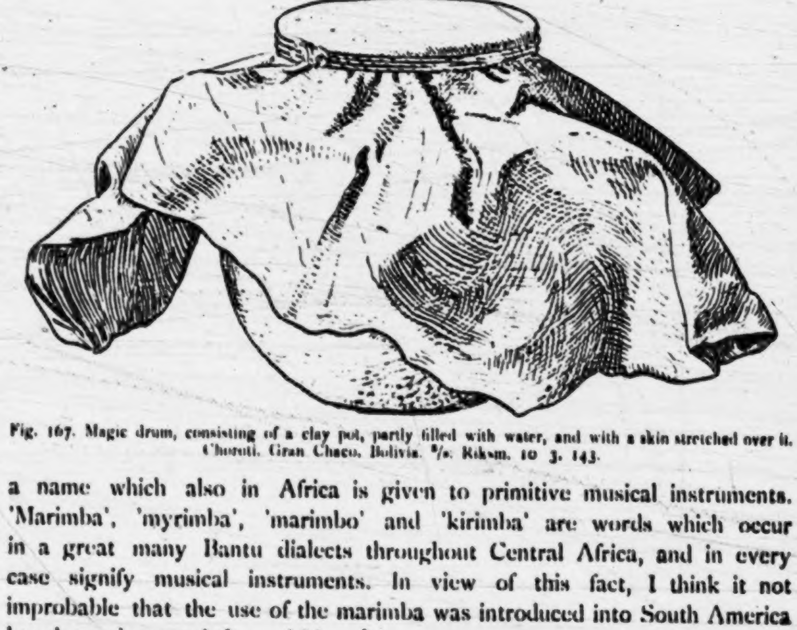

Fig. 167. Magic drum, consisting of a clay pot, partly filled with water, and with a skin stretched over it. Choroti. Gran Chaco, Bolivia. $^3/_8$. Riksm. 10 3. 143.

In a monograph on the music bow of the Busintana, Bolinder has subsequently adduced very strong reasons in support of my supposition that the music bow was actually introduced into South America from Africa in the above indicated manner.[2]

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[1] von Rosen (9).

[2] Bolinder (2).

I never heard the Choroti sing or play any real melody; as I have 533 already pointed out, the musical sense of these Indians appears to be exceedingly rudimentary. But when they are beating their magic drums (fig. 167), or using their magic rattles (fig. 170), one perceives that they are by no means lacking in a sense of rythm.

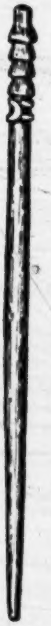

Fig. 168. Drumstick, of wood, with a small tin-plate mounting. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 394.

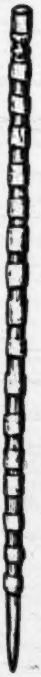

Fig. 169. Drumstick, of wood with ring-shaped tin mountings. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 398.

534 [789] The drums as well as the rattles are of a magical character; both are principally used at incantations and magic dances.

The magic drum consists of an earthenware vessel which is partly filled with water, and covered over with a piece of skin. The skin is tied round the mouth of the vessel with a string of caraguata (fig. 167). A single drumstick is always used. Drumsticks are of wood, and usually carved; sometimes they have metal mountings (figs. 168 and 169). When the drum is to be used, it is usually stood on a ring of straw which is placed on the ground.

Drums consisting of clay pots with skin stretched over them have also been in use in North America. According to some early authors, such drums were not beaten with the bare hand, but with a drumstick: thus they were in this respect handled in the same manner as by the Choroti.[1] As to whether the North American drums were also partly filled with water, I am not able to say, as in the literature I have found no information on that point.

In a previous work I have endeavoured to show that, among the Choroti, water was put into the drums for the purpose of tuning them to the pitch that was wanted.[2] This detail of information, which I had from the Choroti themselves, is in all probability correct. Karsten, however, offers a different explanation. He is of opinion that the water is poured into the clay-pot drums exclusively for reasons

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[1] See for example Holmes (1), p. 34 and fig. 4.

[2] von Rosen (2), p. 12.

534 of magic, and on this matter he writes as follows: »These drums consist of a plain clay pot, which is partly filled with water and has a goat- or deerskin stretched over it. Here the water evidently serves no practical purpose. It may therefore be supposed that the idea was simply to strengthen the magic force that the drum gave out when beaten upon.»[1] Karsten's saying that the water in the pot could serve no practical purpose seems to me strange, as, by practical experiment, one can easily satisfy oneself that a Choroti drum partly filled with water gives out quite a different tone to what it does when quite empty. We also know that elsewhere similar means are employed for tuning drums as desired, for it is stated by Engel that the Chinese used to fill their »po-fu» or »ku» drums, wholly or partly, with rice husks, in order to give roundness and mellowness to the tone.[2]

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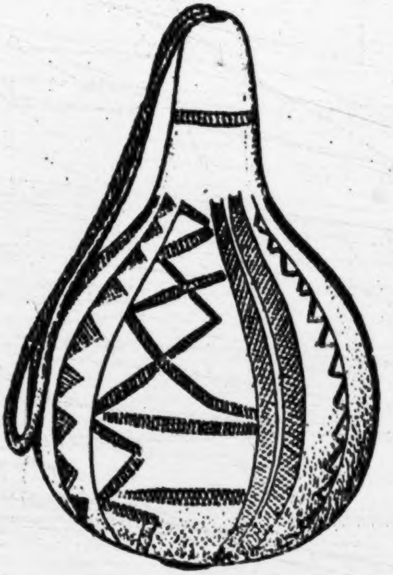

Fig. 170. Magic rattle, of calabash with incised ornament. Carrying cord of red, woollen yarn. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 386.

Figure 170 shows a magic rattle consisting of the shell of a calabash, and containing a dark-blue, much worn, piece of glass and two kinds of almost spherical seeds, one of them being black and the other yellow. The latter have a diameter of 5 mm; they belong to a species of Smilax. Professor Fries has pointed out to me that the roots of Smilax species are officinal. It has not been possible to determine the black seeds; their diameter is 4 mm. In the handle is fixed a carrying cord of

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[1] Karsten (3), p. 205: »Diese Trommeln bestehen aus einem einfachen Tontopfe, der zum Teil mit Wasser gefüllt und mit einer Ziegen- oder Hirschhaut bezogen ist. Das Wasser dient in diesem Falle zu keinem anscheinend praktischen Zwecke. Wir können daher annehmen, dass man einfach glaubte, die zauberische Kraft zu erhöhen, die dem Tontopfe anhaftete, und die von der Trommel ausstrahlte, wenn sie geschlagen wurde.»

[2] Engel (1), p. 41: »The po-fu used to be partly filled with a preparation made from the husk of rice, *in order to mellow the sound.*» Italics by von Rosen.

534 plaited, red woollen yarn; in the centre of the thick end of the rattle a circular hole has been made, 1.5 cm in diameter. It is through this hole that the above mentioned seeds have been poured into the calabash. The hole has then been stopped up with a plug of some black, waxy substance. The visible part of the plug is decorated with a mother-of-pearl button which originates from the whites. On the calabash there is carved ornamentation.

Rattles do not always contain only seeds, for in their interior one may also find other articles, such as bits of tinplate, glass beads and bits of glass (usually worn into a resemblance of pebbles), see fig. 182.[1] The incised ornament on these rattles is probably in every case of magical significance, even when, as on the rattle in fig. 170, it does not form any pictorial representation which is perceivable by the uninitiated. Pictorial representations are, however, fairly common on magic rattles of calabash (see fig. 181). In many rattles, the seeds, bits of metal, etc., have been introduced by way of a hole at the end of the handle, fig. 181, into which a plug of wood has then been inserted. This kind of rattle is as a rule without a hole at the base, or carrying string (see table on page 169).

535 [534] Nordenskiöld[2] as well as Karsten[3] has given valuable accounts of the dances of the Choroti. At some of these the Indians wear a kind of dancing girdle, hung with animal hoofs or dried fruit shells which beat against each other at the dancer's movements, and in that way make a rattling noise. Karsten has tried to establish that all Choroti dances originally were of magical purport,[4] whilst Nordenskiöld is of opinion that the Choroti also possess purely profane dances, connected with the sexual life of these Indians.[5] Nordenskiöld describes this kind of dance in the following way: »In the larger villages, among the Choroti as well as the 535 302 Ashluslay, there is dancing every night, nota bene, if the belly is not empty. For the young people these dances are everything; all their interest

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[1] The bits of glass that one finds inside magic rattles are as a rule so much worn and stone-like that it requires a mineralogist to ascertain the fact that they are not products of nature (see fig. 182). The statement that one often finds the magic rattles of the Choroti containing stones (Vide von Rosen (3), p. 12), is erroneous, and due to the illusive resemblance that these worn bits of glass bear to quartz pebbles.

[2] Nordenskiöld (18) and (17).

[3] Karsten (1) and (4).

[4] Karsten (4), p. 26.

[5] Nordenskiöld (17), p. 145.

535 centres on them. It is for them that they paint and deck themselves out.
302 At these balls the young Indian tries to appear as elegantly apparelled,
as originally painted and decorated, as possible. Each day he paints
himself after a different fashion, and arranges his ornaments differently. —
These gentry, upon growing into older, staid, married men, no longer
adorn themselves for ball parties, but only for war. — As to the Choroti
girls, I have often seen them anointing their bodies with fish oil, which
imparts to then an unpleasant smell. Their own opinion on this point is
[832] no doubt a very different one. To their thinking, we Europeans have an
offensive cow smell. The level of elegance affected by the men is never
535 attained by the women. Still, they are, however, able to make the
consoling reflection that it is, anyhow, in the first place for their sake
that the lords of creation spend several hours of the day on their toilet.

›As has been said, it is in dancing that the whole interest of the young
men and the young women centres. When the sun has set, then it begins.
In a circle, or in a single rank, the men dance, marking the time by
singing, may be: "Táe-a-sa-lé, táe-a-sa-lé'. As the rhythm of the singing
is slow or quick, so is the dancing. Music is a thing unknown at these
[533] dances. The chants that are sung are untranslateable refrains, which often
are international, i. e., are used by many different tribes. The girls dance
behind the men. Among the Choroti Indians it is the girl who takes the
[832] initiative in the matter of amatory ventures. She simply carries off with
her, from the ball, any particular young man whom she may want as
her lover for the night. These dances made a grand spectacle, as the
moon, or a bonfire of pampas grass, shone on the gleaming bodies, I
have seen as many as a hundred men form a dancing circle. At times
the dance went quite slowly; at times it would go at a breakneck speed,
raising clouds of dust, so that all one could see was a whirling melée of
bodies and waving ostrich plumes.[1]›

535 Of the dances of the Chaco Indians,[2] those that are obviously magical
789 are mainly performed as ceremonies of exorcism against dreaded spirits
who have it in their power to cause illness or death; according to Karsten,
magic dances are also resorted to in order to enhance the supply of
wild, edible fruits.[3]

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[1] Extract from Nordenskiöld (18), pp. 73, 75—77, and 79.

[2] Karsten (1).

[3] Karsten (4), pp. 25 – 28.

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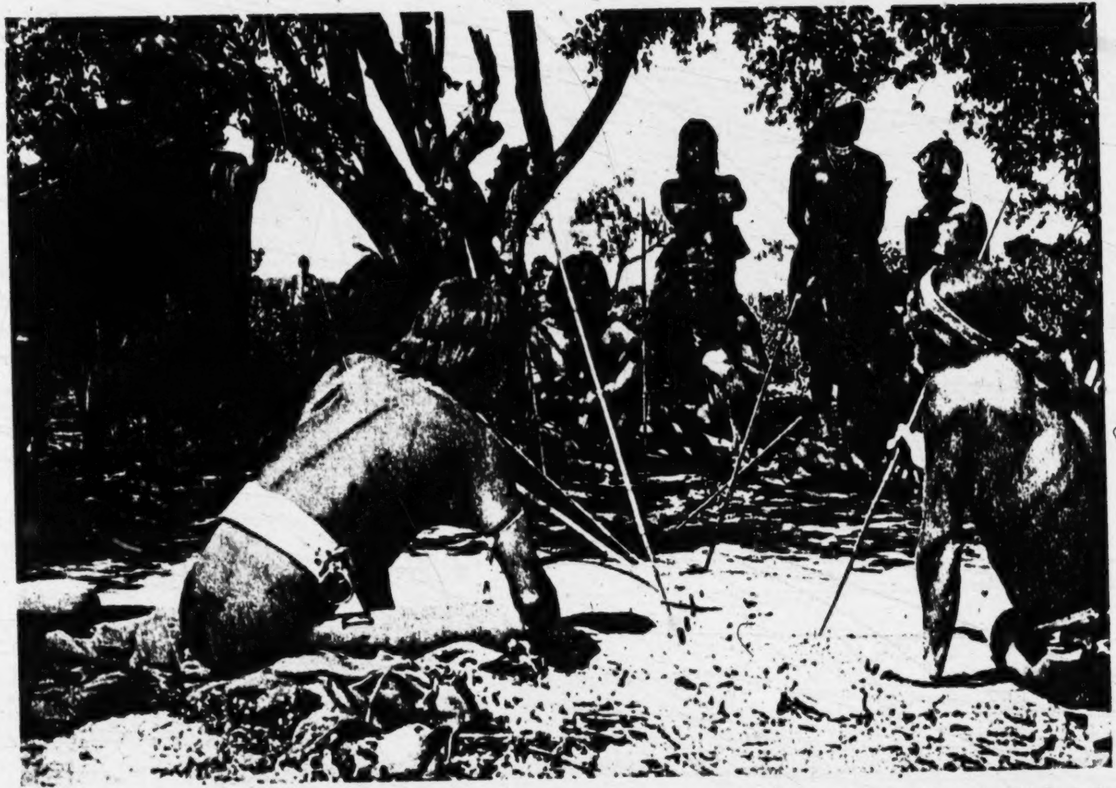

Fig. 171. Men who are engaged in playing a gambling game called »chuke». The scoring is done by means of arrows stuck into small holes in the ground, usually arranged in the way seen in fig. 173. On account of the shadow thrown by the arrow nearest the foreground, the holes next to this arrow, although strongly sunlit, can be seen. The third arrow from the foreground is planted in the »river» (see page 173). From this picture, as from the diagram, fig. 173, will be seen that the row of holes at times may be laid out so as to form a curve or an obtuse angle.
Choroti. Gran Chaco Bolivia. Photo. E. v. R.

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The Choroti takes much pleasure in games and pastimes. Fig. 171 shows some Choroti men engaged upon a gambling game called »chuke», which in the Chaco is widely known and very popular. It is a kind of dicing game, although the dice, unlike ours, are not cubes but consist of planoconvex or concavo-convex sticks of wood or cane, usually about a decimetre long. Four playing sticks are always used. The convex side of the playing sticks is generally ornamented by burning or carving, so that it may quickly be decided, after each throw, which side has come uppermost (fig. 172). When the Choroti are preparing to play chuke, they dig little holes in the ground, in the way shown in figs. 171 and 173.[1] The men playing at a game of chuke may number two, four, six, or eight. I have never seen women playing chuke. If we suppose that only two persons are playing this game, this is the way it is done:

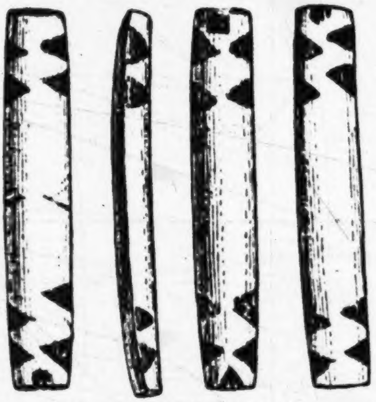

Fig. 172. Counters, of yellow wood, plano-convex, with ornament burned in. Used in the game of »chuke», Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 10. 3. 79.

The holes numbered 1 and 23, respectively, are the »homes» of the players. A plants one of his arrows in No. 1, and B one of his in No. 23. These arrows (pointed sticks will also do) represent the two players. The hole numbered 12 is called the »lake» or the »river»; it constitutes the boundary between the fields of the two players. Into the holes numbered 1 to 11, A places his »chips», or counters, consisting of bits of grass, wooden sticks, chips of wood, or seeds, and B puts his into the holes numbered 13 to 23. These counters are called »sheep». A takes two playing sticks (see fig. 172) in either hand, and throws them against each other so that they may touch when they are falling to the ground. The players then look to see how many sticks have fallen with the convex side up, and the value of the throw is calculated in accordance with the following scoring system:

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[1] A somewhat different system as to the number and arrangement of the chuke holes is also in use. Nordenskiöld (11), p. 162—164.

4 convex sides upturned count 4 points,
0 » » » » 2 »
2 » » » » 1 »

A throw resulting in odd numbers of convex sides turning up is valueless, i. e., counts 0 points.

Supposing A makes a 4-point throw, this entitles him to move his arrow to the fourth hole from his »home», that is to say, to No. 5. If he had made an 0 score, his adversary would then be in turn for throwing the sticks, but as it is, A is by the rules allowed to go on and then makes, say, 2 points (i. e., no convex side up) and accordingly moves his arrow another two holes, to No. 7. If his next throw results in nil, then he must not move his arrow. It is now his adversary's turn, and if he makes 1 point with his throw, he moves his arrow from his »home», which is No. 23, to No. 22 hole. If his next throw counts 4 points, he moves his arrow 4 holes, to No. 18. A zero throw breaks the sequence, and changes the turns for A and B to throw. Eventually, when either player makes a throw which carries him across the »river» (No. 12 hole) so that his arrow has to be placed in a hole within his opponent's field, he takes the »sheep» that are in that hole. Should a player make a throw which lands him in the »river», he scores a no-throw, and is not allowed to play again until his opponent has completed an entire round. If the player who is in the »river» should from that position make a zero throw, then he has to move his arrow back to the hole nearest his »home» where he still has some »sheep» left. And if, for instance, A should knock B's arrow out (see below) before he has taken all his »sheep», then B has to move his arrow back to his »home».

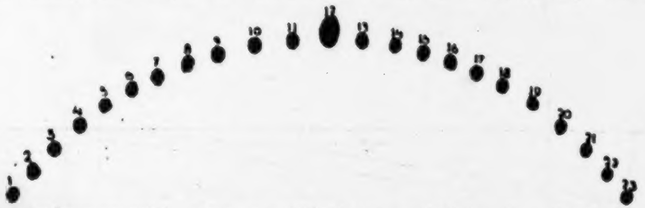

Fig. 173. Arrangement of holes in the ground, for the game of »chuke». From Karsten (5), fig. 5.

After a player has reached the end of the row of holes, he starts back towards his own »home», and moves his arrow according to his throws, as before. In this way the arrows wander forward and back again until a player has taken all his adversary's »sheep», when it 525 remains for him to try and takes his arrow too. In this he succeeds if he can make a throw which lands him in the hole where his opponent's arrow happens to be. If he does that after having taken all his opponent's »sheep», then he has won the game.[1]

The Choroti are enthusiastic chuke players, and as a rule play for stakes. On this game they can stake snail-shell necklaces, woollen mantles and other things, often representing considerable values to the Indians. According to Karsten, the chuke game may also be played for purposes of magic. It is mostly played when there is a dearth of food, for the [789] Indians believe that they are able to make the wild fruit grow in larger quantities by assiduously playing chuke.[2]

Playing with a ball is a much favoured pastime. A ball game resembling 526 hockey is played among the Choroti and several other Chaco tribes. The players divide themselves into two teams, each having its goal to defend. The distance between the goals depends on whether grown-ups or children are going to play, the distance being greater in the case of the former. Each goal is marked by branches stuck into the ground. A wooden ball is thrown into the centre between the goals by an Indian who is not taking part in the match. By means of »hockey» sticks consisting of the leaf-stalks of a palm, grown with a natural bend (fig. 174), or of tree branches, the players then try to drive the ball so that it rolls into the goal that their opponents are defending (fig. 177). As will be seen, this game is played on the same principle as our hockey, by attacking and defending. It was a great pleasure to watch Choroti boys playing hockey, in which their native lissomness was exhibited.

I also saw Choroti children play at ball. Their hand-balls consisted of dry maize leaves tied together in the way seen in fig. 175. They have the appearance of old-time flaming hand grenades, and, whichever way they are thrown, they always fly »ball» foremost and the »fiery tail» pointing backwards or upwards.

The Choroti boys make themselves both long-bows and pellet-bows with which they shoot at a mark, or use in play in other ways; they also amuse themselves with a kind of light, two-cord bolas[3] and with little

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[1] Cf. Nordenskiöld (11), pp. 162—164, and Karsten (5), pp. 100—102.

[2] Karsten (5), p. 102.

[3] Nordenskiöld (13), fig. 24.

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526 »pea-shooters» of reed.[1] With the latter they fire off hard kernels, clay pellets, etc. Very small children are given small rattles made of woody fruit shells with dry kernels inside, which make a rattling noise when shaken. Girls are very fond of playing with dolls. These are modelled in clay by some female relative, usually the girl's mother, and are usually fashioned in the shape seen in fig. 176. This doll, which represents a woman with strongly developed breasts, is, however, not from the Choroti but from the Toba, a tribe with whom I also came in contact during our journey. It would appear as if the Choroti mothers in making these dolls attach the greatest importance to reproducing the breasts as true to nature as possible, and often they also try to copy the tattoo marks on the face. The Choroti dolls, however, often being made either without, or with very small, heads, the tattooing is mostly marked on the breast of the figure.[2]

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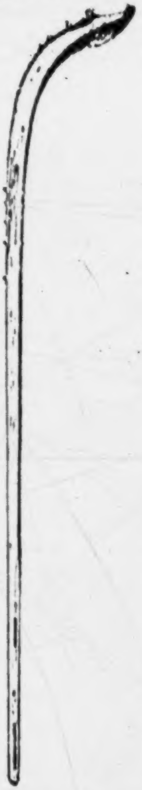

Fig. 174. »Hockey» stick, consisting of the leaf-stalk of a palm. Choroti. Gran Chaco. Bolivia. 1/8. Riksm. 03. 3. 203.

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Not only Choroti children, but also grown-ups occasionally while away time by string tricks more or less resembling those which children of our own country sometimes amuse themselves with.[3]

I have had frequent opportunities of seeing Choroti children at play, and have found their games and sports in many ways similar to those of our own children. Indian children play »tag», play being at war, at hunting and fishing, and also imitate other occupations and doings of their elders.

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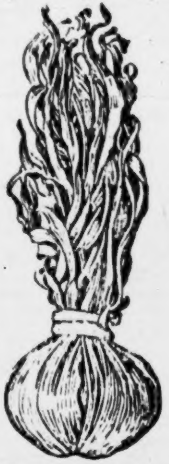

Fig. 175. Hand ball, of maize leaves. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 199.

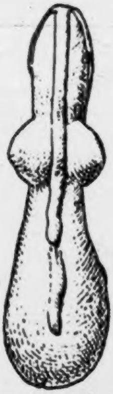

Fig. 176. Child's doll, made of clay. Toba. Gran Chaco. 1/1. Riksm. 03. 3. 805.

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[1] Nordenskiöld (13), fig. 23.

[2] Cf. Nordenskiöld (20), figs. 4—18.

[3] Nordenskiöld (13), fig. 25.

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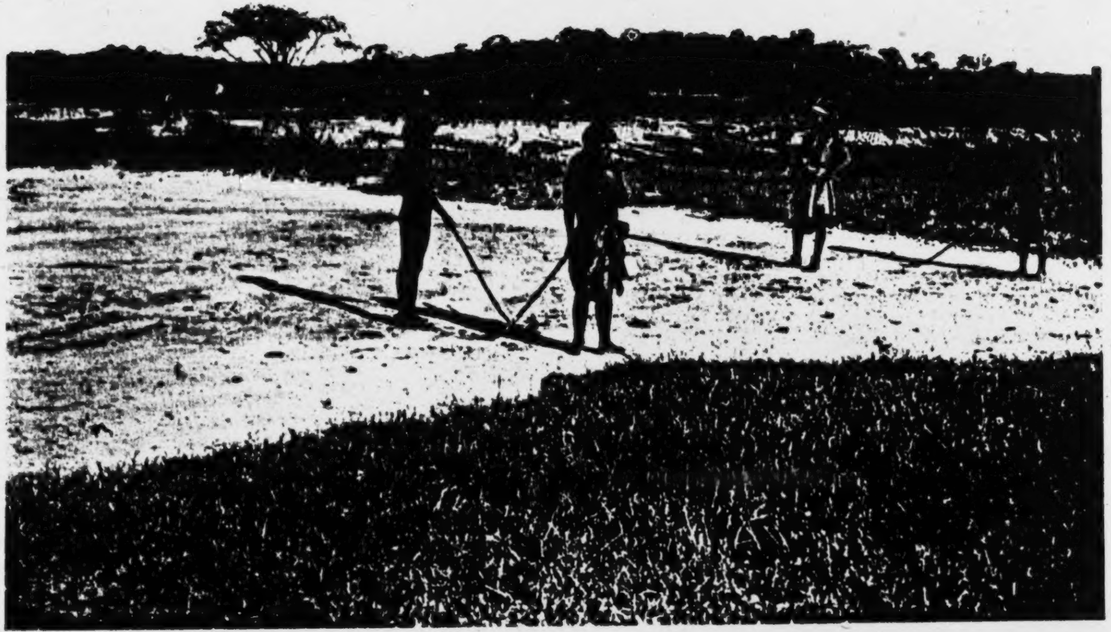

Fig. 177. Boys practising a ball game resembling hockey. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

CHAPTER VI.

The Choroti (6). Family Life and Social Organization. Superstition. Illness and Death.

Marriage customs. Division of labour. Chiefs. Medicine men. Belief in evil spirits. Magic means of protection. Illness. Exorcism. Fairy darts. Physical therapeutics. Death. Burial. Belief in a future existence.

A Choroti man, as a rule, has only one wife, but among the part of 595
the tribe that has been in close intercourse with the Chiriguano, it is
not an uncommon thing for the chiefs to possess several wives, as, for
instance, the chief of the Choroti Indians living in the neighbourhood of
Tatarenda (close on the border of the Chiriguano country), who had no
less than three spouses. In fig. 178 is seen this chief holding one of his
sons by the hand; to the left of the boy there is the chief's »number-
one» wife, grown old and ugly, and on the man's right is his second
wife, the mother of the boy. His third wife, who is not included in the
picture, was quite a young girl.

Among the Choroti it is the women who take the initiative in amor- 832
ous relations. As a rule, this is done at dances which take place in seasons
when food is abundant, and the Indians accordingly find it fitting to dance
and amuse themselves. In his book »Indianliv», Nordenskiöld has given a
very vivid description of such nocturnal mating dances, and in the preceding
chapter I have (pp. 149, 150) quoted from him.

When a girl has reached mature age, she enters into free and un- 836
restricted relations with now one, now another, of the men, but finally she
finds for herself a partner for life (see fig. 179). Having once taken this
step, she usually keeps faithful to her husband. If a Choroti girl should
happen to become pregnant, she sets about procuring abortion, and in [847]
that way she as a rule avoids having any children before becoming a

wife.

ot wife. Not infrequently it happens that two or more girls become enamoured
579 of the same man. Then fierce fights are often fought out between the
832 rivals, who in these encounters sometimes use knuckle-dusters or sharp-pointed bone awls (see fig. 111). The Choroti girls have a somewhat peculiar way of demonstrating their tender feelings towards their beloved; they do not kiss him, but scratch him with their nails and spit in his face![1]

591 When a woman has been taken to wife by the man she has chosen, the latter comes to live in her village, at least for some period of time.[2]

462 *Division of labour as between the sexes among the Choroti.*

M = men; W = Women.

Rearing and care of livestock	M[3]	W[3]
Fire kindling, by drilling	M	
Collecting fuel		W
» wild growing, edible plants		W
» wild honey	M[3]	
Hunting and catching game	M	
Preparing the food	M[4]	W
Cultivation of food plants	M	W
Wool and cotton spinning		W
Sewing	M[3]	W[3]
Manufacture of feather ornaments	M	
» » articles of calabash	M	
» » pottery		W
» » articles of leather	M	W[3]
» » fishing nets	M	
» » articles of wood	M	
» » weapons	M	
» » bags, knitted of caraguata yarn		W
» » » » woollen »		W
Load carrying		W
Hut building	M	W
Weaving		W[3]
Drawing and carrying water		W
Beer brewing	M[5]	W[5]

The heavier burden of work undoubtedly falls to the lot of the women. It is their business to gather edible fruits, to carry home fuel and water, to prepare the food, and, of course, also to tend the children. When the tribe is travelling, it is the women who carry the household furniture and

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[1] Nordenskiöld (13), p. 81.

[2] Nordenskiöld (13), p. 83.

[3] According to Nordenskiöld (13), p. 87.

[4] Roasting the food. According to Nordenskiöld (13), p. 87.

[5] Beer fermenting, only. According to Nordenskiöld (13), p. 87.

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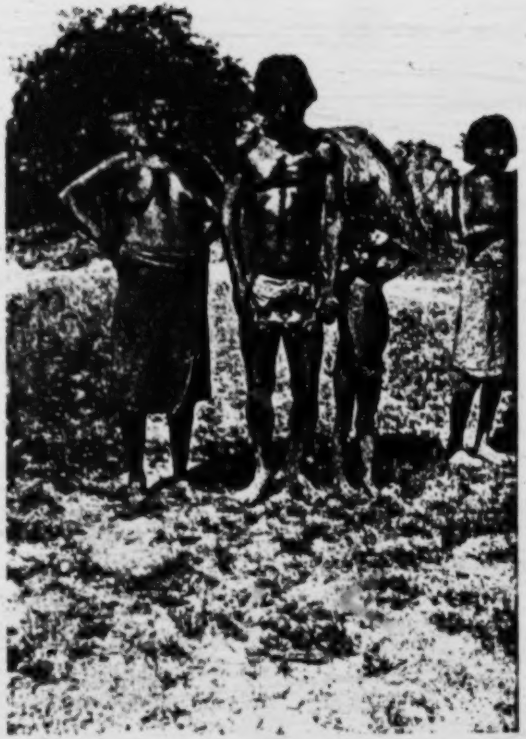

Fig. 178. A chief, with his son and two of his three wives. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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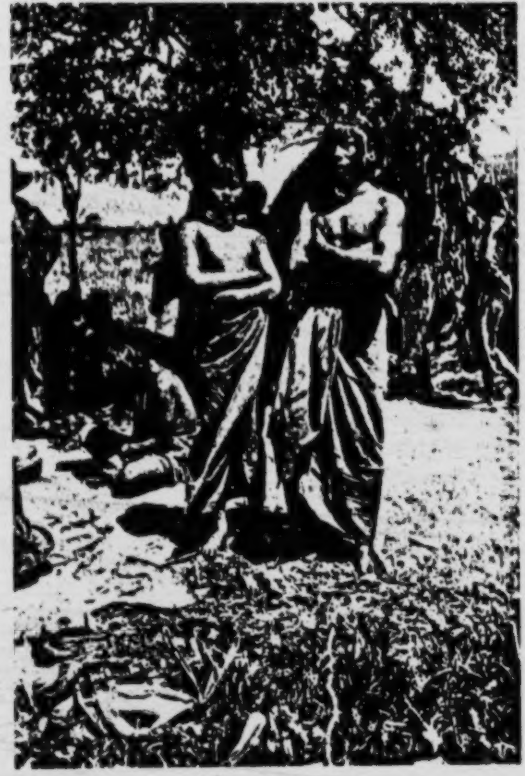

Fig. 179. A girl, and the lover she has chosen for herself. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

equipment in large carrying-nets and bags; at such times the men march 462
along unburdened, carrying in their hands only bow and arrows. This is, however, easily accounted for, as on the trek the men have always to be prepared to kill game for procuring food. If they, like the women, were hampered by heavy loads, they would practically have no chance at all of taking a ready arrow shot at game encountered on the march.

I never once saw grown women amusing themselves with any games or sports, whereas this is frequently the case with the men. The chief occupations of the latter consist of hunting, fishing, the gathering of wild honey and the manufacturing of various weapons and implements (see the above table of division of labour as between the sexes). The men give considerably less time to actual labour than the women, and to me it seemed as if the life of Choroti wives was hard and laborious, whilst that of the men, as a rule, was pretty light and easy-going.

Nevertheless, the men are by no means hard or cruel to their wives, 593
and it appeared to me as if the women took it as a matter of course that they had to work for their husbands and children in the way they did, and, generally speaking, they seemed quite content with their lot in life. Indeed, I noticed many instances of real domestic happiness.

Parents bear great love to their children. These, when quite small, are
carried by their mothers in a broad strip, or piece, of cloth in the way [854]
fig. 180 shows. The Choroti do not have many children; it is only seldom [462]
that the number of children exceeds four. According to Nordenskiöld,
they are given names only when old enough to answer to them. The 551
same author has noted down the following Choroti names, of which the first 553
three are men's names, and the remainder women's names: Yóselianée (the killer of foxes), Hótenic (Mataco), Éstiáhua (a gallinaceous bird), Hayku (not sweet), Kósoki (suffering from skin eruptions), Aséshnialo (women in plenty).[1]

Parental authority does not amount to much, and actual bringing up and
discipline is entirely out of the question. In cases where parents attain
so great an age that they become irksome to their children, it is not
unknown for the latter to kill them. Nordenskiöld's interpreter, Flores, 888
once witnessed a Choroti man burning an old and decrepit woman alive. 754
Old men and women, who are suspected of working evil by witchcraft, 683
are sometimes burned alive, and therefore it is possible that belief in the

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[1] Nordenskiöld (18), p. 85.

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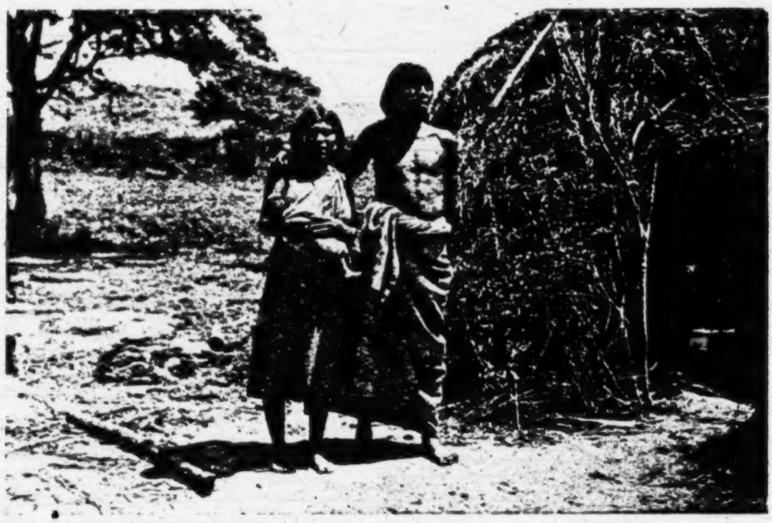

Fig. 180. Husband and wife, with baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[888 754] supernatural, of some kind or other, plays a leading part when children
683] kill their aged parents.

Every village is ruled by a chief or headman. According to the observa-
622 tions of some investigators, these headmen do not nowadays possess any great power or authority, but among the Choroti whom I visited in 1901, the chief's authority was by no means inconsiderable. For example, it only needed my arranging with him that the Indians were to carry out a certain piece of work, and the work would be done. For the work performed by the Indians I paid the chief in goods, which he allotted among them as he himself thought fit, as it appeared. In war, each village
[643] contingent is under the leadership of their headman. It was stated by the soldiers of Fort Crevaux that all Choroti used to be under a paramount chief, whose authority over all the other chiefs principally consisted in his being entitled to taking chief command in war. The office of village headman as a rule descends from father to son.

622 That certain Choroti chiefs used to be held in greater respect than
554 others was made evident to us at a visit we made to a sugar plantation on our return journey to Salta. A large number of Choroti had just then

arrived at this plantation to look for work. Led by their chiefs, they had 642
made the long journey from the region of their homes. The chiefs, some 554
of whom had met us in the Chaco, whilst others had only heard of us,
wished to pay us a call. Personally I do not possess any notes about
this reception, but I have come across some in Fries' diary. He thus
refers to the incident: »When the Choroti Indians, whom we knew from
Tatarenda and who were now working here, saw us, they came, almost
to a man, and greeted us, being evidently very glad to meet us again.
The principal chief, at the head of all the lesser caziques, was among
those who came and paid us their respects.»[1]

A favoured position in the village community is that held by the medicine 756
men; for their services they are rewarded by a — from a Choroti point [554]
of view — generous remuneration in the form of food and drink. That
among the Choroti the medicine men are held in great esteem, and that
everybody is anxious to be on good terms with them, appears only
natural to anyone with a knowledge of what an important part magical
conceptions play with these Indians. It is largely by the Finlander explorer,
Rafael Karsten — oft-quoted in the present work — that ethnological [114]
science has been enriched by information and detailed reports on the
magical customs and practices of the Choroti, as well as of other Chaco
tribes.[2]

The Choroti Indians believe that man, all his life through, is more or 776
less subject to influences from spirits, who, on the whole, are of a harmful
nature. Especial danger is to be apprehended from spirits on certain
occasions such as child-birth, pubescence and death. Usually the evil is
worked by a spirit, »mohsek», entering a person through one of the
orifices of his body and thereby assuming possession of him. If at birth
a child is deformed or very sickly, it is supposed to be possessed by some [847]
evil »moshek», and is on that account killed.[3] When a girl has attained the
age of puberty, during the first critical, time she must keep a covering [881]
over her head, so that no evil spirit may be able to enter her body by
way of her nose, mouth, eyes or ears.[4] The occasion of a girl attaining
puberty is celebrated with a dance which undoubtedly is of a magical
Character.

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[1] Professor Robert Fries' diary, X, p. 14. Italics by von Rosen.

[2] See Bibliography attached.

[3] Karsten (4), p. 176.

[4] Karsten (4), p. 165.

776 character.[1] When there has been a death in a village, certain precautionary
[764] measures have to be taken in order that the spirit who caused the death
may not in some way or other work further evil.

But also on all other possible occasions the spirits are capable of working harm, indeed, Karsten is of opinion that the Indians, even when doing such commonplace acts as eating and drinking, fear that malicious spirits may surreptitiously effect an entrance into them along with the food or drink.[2] That the Indians have this belief is not so very remarkable. Similar conceptions are to be found among many peoples in different continents, and have also been widely spread in Europe. To mention one instance; in olden times on yawning or sneezing there was the custom of making the sign of the cross before the mouth, a custom founded on the fear that the devil or some of his kindred should slip in through the open mouth.

751 As a means of protecting themselves against evil spirits, or for securing, in a magical way, other advantages, the Choroti make use of a variety of devices, the most important of which are the covering of the body, painting of the face, dyeing textiles and other objects red, tattooing, wearing of amulets and certain ornaments, singing, blowing of whistles and shaking rattles, beating of drums, dancing, games of hazard, cutting or pulling out of hairs, and blood-letting.

The custom, previously mentioned, of the girls at their first menstruation keeping their heads covered with a cloth, is an instance of the first-mentioned magical means of protection.

302 At dances and lovers' meetings the Indians paint their faces (see page
751 78), but they adorn themselves by face-painting also on other occasions. As an instance, men as well as women usually had their faces painted when visiting us in our camp. At the time we took this to be a manifestation of Indian vanity, but after having read Karsten's detailed account of the reasons for painting the face among the Indians, I am more inclined to the belief that this painting had been applied as a protection against such unknown spirit forces as might possibly threaten them in the camp of the whites.

831 That painting of the face is done at dances and meetings of a sexual
302 character, is a circumstance connected with the Indian belief that occasions
751

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[1] Karsten (1), p. 26, and (4), p. 17.

[2] Karsten (3), p. 205.

of that kind are especially apt to make it easy for the spirits to acquire 831
possession of human beings. When a woman paints her face, that fact 302
may, therefore, indirectly constitute a sign that she desires sexual intercourse, 751
although the painting may perhaps have been done for the magical reasons above indicated.[1]

On page 58 I have remarked that on a reed-casing for keeping 751
ostrich plumes the holes and the edges of the lids were painted red. This 415
red-painting cannot very well be of a decorative character, seeing that there is not much of the paint visible when the lid is closed. According to my opinion, it is very probable that the paint has been applied in order to protect the delicate ostrich plumes contained in the casing from sustaining harm from evil spirits. The fact is that there is, among the Indians, a wide-spread belief that decay and similar processes are caused by evil spirits, on account of which it has been customary among certain Indian tribes to paint not only corpses but also grave equipment with red paint for the purpose of preservation against decay. And we also possess positive evidence that among certain Indian tribes the custom prevails of providing the property of the living with a similar magically protective, painting.

When through Karsten's paper on Indian conceptions as to the sig- 172
nificance of painting,[2] my attention had been drawn to these circumstances, I took to examining most of the objects I had found as grave furniture at Quebrada del Toro and Puna de Jujuy (Argentina) in order to ascertain whether any of these objects had been painted before being put with the dead.[3] This examination revealed that nine wooden objects seemed to be painted all over with red paint, but as I, owing to the objects having lain such a long time in the ground, was unable with certainty to decide whether these objects really were painted, or whether their red colour was due to the natural colour of the wood, I had the objects in question submitted to chemical examination. It was then established that the objects were painted, and that the paint consisted of ferrix oxide, almost pure,[4] (so therefore not uruku, which is prepared from Bixa Orellana).

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[1] Cf. Karsten (4), Chap. I.

[2] Karsten (4), Chap. I.

[3] As a result of the fact that all the ethnographical and archaeological collections of the Riksmuseum are stored in most unsuitable premises, it has not been possible to find all of the objects.

[4] Analytical report No. 211954, Chemico-Technical Bureau (Kemiskt Tekniska Byrån).

172 Particulars of the objects in question are given in the table here below:

Objects painted all over with red paint, found by the author in ancient Indian graves at Casabindo. Puna de Jujuy. Argentina.

Riksm. coll. No.	Class of object	No. of fig. in von Rosen (10)	No. of page on which object is mentioned in von Rosen (10)
03. 3. 6797	Long handled spoon	—	38
03. 3. 6826	Pointed stick	53	37
03. 3. 6809	Distaff	—	31
03. 3. 6819	Small club (fish club?)	42	34
03. 3. 6833	» » » »	44	33
03. 3. 6820	Wooden knife	59	38
03. 3. 6871	Miniature bow	45	34
03. 3. 6873	Fragments of arrow shaft	—	35
03. 3. 6821	Mesh-spacer	39	32

304 751 On page 72 et seq., I have already described the manner in which the Choroti tattoo themselves, and also pointed out that this tattooing is of a magical character whilst at the same time this practice, like the painting of the face, is to a certain extent connected with the sexual life of the Indians. It is highly probable that not only the painting, but also the tattooing, of the face among the Choroti is done in order to prevent evil spirits from entering the body by way of eyes, nose, mouth and ears.[1] The arrow-like signs that sometimes are found as ornament done in tattooing or painting among the Chaco Indians (see for instance fig. 66), are, according to Karsten, in some way connected with the circumstance that the spirit of illness, called »mohsek ihitek» (i. e., the arrow-shooting mohsek) uses arrows for working harm upon people, for which reason arrows may be considered as amulets.[2] This, the Indians' way of looking at things, corresponds to the old saw: »like cures like», or »taking a hair from the dog that bit one».

531 751 Figures and ornamental signs, incised or burned-in, on calabashes for husehold use (figs. 127, 129—132) as well as on magic rattles of calabash (figs. 170 and 181), are, at least in certain cases, to be regarded as magical protective devices against evil spirits.[3] The significance of two figures, resembling human beings, carved on the magic rattle in fig. 181.

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[1] Karsten (4), pp. 8 and 10.

[2] Karsten (4), pp. 190 and 191.

[3] Karsten (5), p. 179.

531

I cannot tell, but from an analogous carving from the Lengua it is very 751 probable that they represent spirits.[1]

Most rattles contain seeds, and in many of them are also found a large 534 number of metal fragments (see synoptical table below). The latter as a 824 rule consist of small, square pieces of tin plate, for the most part with a side of from 5 to 15 millimetres. Bits of glass do not unfrequently occur in the rattles, although never in any great numbers; generally only a few bits of glass are found in any one rattle. In the Chaco, bits of glass are naturally extremely rare. In the rattle reproduced in fig. 181 were only found bits of tin plate and one cactus spine. Although this rattle belongs to the handle-hole type (see pp. 148, 149), it nevertheless has a hole in the bottom, with a plug of the kind I have described in connexion with the magic rattle, fig. 170. Professor Robert Fries has been kind enough to examine the different kinds of seeds that I have found in magic rattles, as well as in the bag mentioned below, and he then determined the presence of a species of Canna, a leguminous plant, a species of Convolvulaceæ, one of Sapotaceæ and a Smilax. Several kinds of seeds could not be identified from lack of material to compare them with.

Synoptic table of contents in magic rattles from the Choroti.

Riksm. coll. 03. 3.

No. of rattle	Type of rattle	Contents
386	Plugged hole through bottom. Carrying cord (fig. 170).	Seeds (Smilax and undetermined), 1 dark blue piece of glass.
385	Ditto.	Seeds (Smilax and Canna), 2 bits of zinc plate, 1 spiral spring of iron, 2 cactus spines.
390	Plugged hole through top of handle, ditto through bottom. No carrying cord. (fig. 181)	Nine bits of plate iron, one cactus spine.
384	Like foregoing, but no hole at the bottom.	Seeds (Canna and undetermined), 2 bits of plate iron.
387	Ditto.	Seeds (Smilax, a leguminous plant, and of unknown species), 34 black glass beads, 1 blue glass bead and 4 yellowish-green bits of glass.
388	Ditto.	Seeds (Convolvulaceæ and unknown), 1 piece of zinc plate, and 1 uncoloured piece of glass.

From a Choroti I obtained by barter a small bag of red cloth 778 (Riksm. 03. 3. 391), abundantly wound round with caraguatá string, in 415 which he said he used to keep the things that he put into magic rattles.

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[1] Grubb (1), p. 75, and fig. a on plate following p. 76.

778 This bag was found to contain a large number of seeds of many different kinds (fig. 182: 22—29); 39 quadrilateral pieces of plate iron (fig. 182: 12, 13, 16—18), 3 curiously shaped pieces of plate iron, about 25 mm in length (fig. 182: 15); 4 plate iron ferrules, or casings (fig. 182: 14; these were probably once mountings on leather fringes attached to a girdle of the type seen in fig. 31); 6 pieces of tin (fig. 182: 1—6); 1 turquoise-coloured glass bead (fig. 182: 20); 1 fragment of ditto (fig. 182: 21); 1 piece of uncoloured glass (fig. 182: 19); 4 blue pieces of glass (fig. 182: 30—33); and 4 green ditto (fig. 182: 7—11). Through friction against each other all these bits of glass have got their sharp edges worn off and their faces ground dull; in shape they now exactly resemble small quartz pebbles. I think it very probable that all the objects contained in this bag, or inside magic rattles, are attributed with magic power, and that, therefore, in the selection of them consideration must have been given not only to their capabilities as sound-producers, but also to their supposed magic properties.[1]

[531]

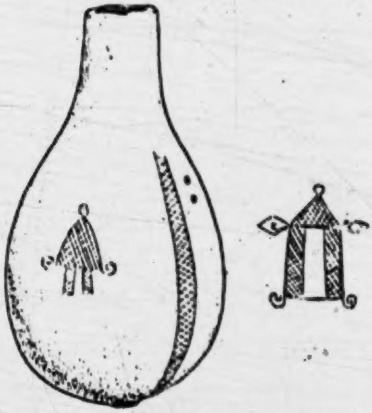

Fig. 181. Magic rattle of calabash, carved with figures probably of magic significance. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 390.

000 Many investigators have established the fact that primitive peoples' ornaments are very often of a magic character. Among certain tribes practically all ornaments may be looked upon as being more or less potent amulets. In my book, »Träskfolket» (»The Batwa of Lake Bangweolo»), I have shown that among the tribes around Lake Bangweolo the belief is very widely spread that many ornaments, such as necklaces, bracelets, glass beads, etc., possess magic properties, and that they are able to give protection, not only against divers illnesses, but also against other evil things, such as wild animals, etc.[2]

That the same conception is prevalent among the Indians of South America has been set forth by many students, among whom, von den

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[1] Cf. Karsten (4), pp. 142—144.

[2] von Rosen (4), pp. 160, 301—305, 351, 352 and 423.

[text continues on p.173]

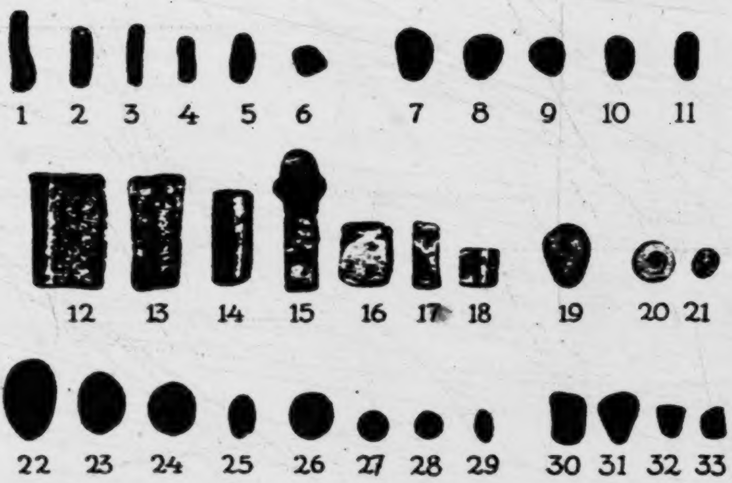

Fig. 182. Specimens of the contents of a bag containing objects for putting into magic rattles. Nos. 1—6, pieces of tin; 7—11, bits of green glass; 12—18, objects of thin plate iron; 19, an uncoloured piece of glass; 20, turquoise-coloured glass bead; 21, fragment of ditto; 22, seed of a sapotaceous plant; 23 and 24, seeds of unknown species of plants; 25, seed of a leguminous plant; 26, seed of a species of Canna: 27, seed of some species unknown; 28, seed of a Convolvulus; 29, seed of a species of Smilax; 30—33, pieces of blue glass. Choroti. Gran Chaco. Bolivia. Natural size. Riksm. 03. 3. 391.

[p.172 is blank]

[original plate in color. - Analyst]

Steinen,[1] Koch-Grünberg[2] and Karsten[3] have made specially thorough 005
research into questions connected with this matter.

From primitive peoples it is, however, exceedingly difficult to obtain thoroughly reliable information. In order to get rid of a tiresome questioner, a negro, or an Indian, will often reply in the way he thinks most pleasing to his interrogator. Information received by means of an interpreter, is not unfrequently unreliable. This explains how statements which are absolutely erroneous have found their way into the works of even the most painstaking ethnographers. Another pitfall consists in drawing hasty conclusions based on analogies. There is this to be remembered; that primitive peoples' process of thinking sometimes runs along lines which deviate entirely from those of civilized man, for which reason conditions which, to us, appear analogous may, to the primitive mind, not necessarily appear as being in any way connected.

Although it has not yet been conclusively proved that all Choroti 789
ornaments are of a magic character, it is nevertheless not improbable 301
that such is the case. About many of the ornamental objects of the Choroti there are thoroughly trustworthy proofs as to their magic character. When from two or more members of a tribe circumstantial and practically identical, accounts of the magic properties of some ornamental object have been obtained, there can, of course, be no hesitation in accepting that the object in question is, by the Indians, regarded as a kind of amulet.

Among the finest of Choroti ornaments possessing a magic character I am inclined to class the frontlets and hair-nets of red woollen fabric (figs. 41, 46 and 47) that the Choroti use on occasions of especial importance. Several Choroti stated to me that these full-dress articles of apparel were [751]
worn not only as ornaments, but also as charms against evil spirits, and the same belief prevails among the Lengua as regards *their* ornaments of a corresponding kind (see fig. 42).[4]

That the Choroti regard their ear-lobe discs (see figs. 53—55) as possessing magic properties, I have already stated in connexion with my account of the character of those ornaments (pp. 62—66).

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[1] E. g., von den Steinen (2).

[2] E. g., Koch-Grünberg (3).

[3] Karsten (4).

[4] Grubb (1), pp. 70 and 71.

301 751 As regards snail- and mussel-shell necklaces (figs. 56—58) it should be specially mentioned that those of the first-named kind, at least, are by the Choroti looked upon as amulets for warding off illness and other evil things.[1] It is not improbable that necklaces made out of glass beads, which have been obtained from the whites, are also held to be amulets. This because of the fact that, among many primitive peoples, the belief has been observed that such glass beads as in modern times they have acquired by way of trading[2] possess magic properties,[3] as well as do the glass-[4] or stone beads[5] that they themselves have found in ancient dwelling-site deposits or graves.

Occasionally the Choroti wear anklets of birdskin, or ostrich (Rhea) feathers tied together (fig. 59). On page 71) I have mentioned that [825] these anklets are not exclusively ornaments, but that they also serve a purely practical purpose. The fact is that the Choroti, as well as other Chaco Indians, regard them as a protection against snake-bite, in that a snake is more likely to strike at the feathers that are on the anklet than at the leg, or foot, of the one who is wearing it. Karsten states, on the authority of Grubb, that the Lengua for the same reason wear anklets made of feathers. But to Karsten this natural explanation is not sufficient, for he remarks that Grubb might have added that these anklets are, at the same time, looked upon as amulets, because the Indians believe that an evil spirit accompanies the snake venom in entering the foot of a person bitten.[6] Karsten endeavours to show that all feather ornaments are, by the Choroti Indians, regarded as magic objects.[7]

000 Most primitive peoples ascribe magical properties to many of their belongings. For example, our Viking forefathers largely regarded their weapons and other equipment as possessing magical powers. It is well known that the Vikings believed that, for instance, swords, and other edged implements, in some magic way could give their owners protection against evil spirits. But the main purpose of swords and edged tools was

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[1] Karsten (4), p. 139.

[2] See for example von Rosen (4), p. 305.

[3] See fig. 182: 20—21, and text on pp. 169 and 170.

[4] See, e. g., von Rosen (1), p. 251.

[5] See, e. g., von Rosen (1) p. 200.

[6] »He might have added that they are at the same time regarded as magical charms, since with the snake's poison an evil spirit is believed to enter the foot.» Karsten (4), p. 119.

[7] Karsten (1), Chap. III.

as a rule a practical one, although the articles might, *apart from that,* 680 be of magic use. In the same way many of our Northern ornamental objects might be attributed with a magical character, although my belief is that, e. g., the »heirloom» silver ornaments of our peasantry were more appreciated because of their decorativeness than for any supposed magic properties of theirs. Naturally, also among us there were then ornaments (e. g., Tor's hammers) whose supernatural-, was more obvious than their decorative, character, and such cases may be considered as typical amulets.

These points of view I also consider applicable when reviewing the 301 ornaments of the Choroti. 789

For it appears to me that, in the case of the Choroti, a differentiation can be made between typical amulets and ornaments to which magic properties are ascribed.

Objects of the latter kind are always worn in full view; they are usually carefully made or worked, and have, as a rule, a decorative, often startlingly showy, appearance. If one asks a Choroti why he is wearing such an ornament, the answer which one as a rule obtains is merely that it looks well, or that it is useful to wear. Occasionally one may get the reply that the ornament is of use against evil spirits, but in such cases it is my firm opinion that, to the Indians, the object's magic character is of less consequence than its being pretty or making a pompous show.

Such objects as I should like to call typical amulets are exclusively, or mainly, of a magic character. Amulets of this kind are often, although not always, entirely devoid of all pretence to beauty. They not infrequently consist of unworked objects, from nature, such as claws of animals, head-carapaces of armadillos, bits of skin, tufts of hair, and other things. They are often worn so as to be out of sight, say in a bag, or under the clothes. Figs. 183 and 184 represent typical specimens of this kind of amulet. To distinguish between these two groups of objects *only from their appearance,* is, however, quite impossible. It must be remembered that claws, teeth, etc., are capable of being put together and arranged into ornaments which are very attractive from an esthetic point of view, but as the supposed magic power of the claws and teeth ought rather to increase than decrease by being placed in contiguity, ornaments that have been composed in this way would constitute implements in which the magic qualities were valued by their owners far more than the esthetic.

301 That in primitive man there is an instinct for self-ornamentation, I
789 consider cannot be doubted. In children this instinct is found, and it is possibly also traceable among animals.[1]

[224]

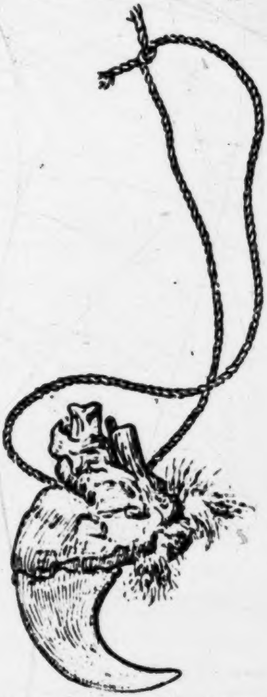

Fig. 183. Hunting amulet. A jaguar or puma claw. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 399.

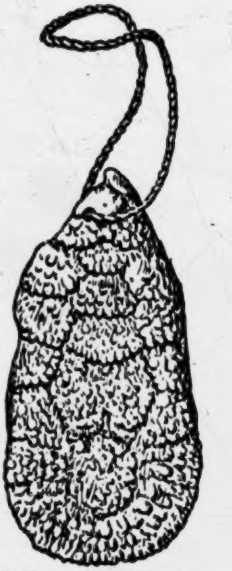

Fig. 184. Hunting amulet. The carapace of an armadillo's head. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 400.

000 According to my opinion, flowers and snail shells were certainly used as ornaments by our race long before the dawn of such mental development as made possible the idea of supernatural things. Prior to this, no »magic» properties of any kind were, of course, ascribable to natural objects. The faculty of sensing beauty in a material form is bound to be

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[1] Apes and monkeys, in captivity, are sometimes said to try decorating themselves with necklaces, hats, etc. This may, however, result only from a desire to imitate. More remarkable, it seems to me, is that elephants, camels, horses and dogs are said to show evident satisfaction when gaily decked out.

of older origin that conception of things supernatural, wherefore it follows 060 that purely decorative art must be older that magic art.

In the course of time, ornaments have, from a variety of reasons, become attributed with magical properties, *without having, on that account, necessarily lost their character of being ornaments.*[1] At a still later stage it happens that the supernatural properties that once were ascribed to the objects are considered unimportant, and therefore by degrees fall into oblivion. Probably the Choroti will soon arrive at this stage of development in respect of their ornamental objects, and thus Karsten has rendered a very important service to science by having »fixed», so to speak, this stage of the evolution of Choroti culture, even if he, as is my opinion, at times overshoots the mark by giving undue prominence to the magic side of the question.

Singing, dancing, drum-beating and rattle-shaking are by the Choroti 789 regarded as potent in incantation and exorcism. This is a well known 533 fact, to which I have also referred on pp. 182, 183 in my account of a funeral dance which took place in a Choroti village.[2] That blowing a kind of disc-shaped whistle is done for the purpose of driving away evil spirits I have already mentioned (p. 144). As regards the supposed magical character of a game of chance called »chuke», I also beg to refer to what I have said in the foregoing (see p. 155).

A popular belief, which is to be met with practically all over the world, 826 is that the mental and physical force in man is in some supernatural way centred in the hair of his head. As an instance of this, Karsten refers back to the well known legend about Samson, the hero who lost his strength as soon as Delilah had shorn him of his hair. Among us Northeners, as among other European peoples, the belief has also existed

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[1] It is, inter alia, from Stolpe's works — e. g. Stolpe (1) — a well known fact that these seemingly purely geometrical ornaments of primitive peoples often can be traced to symbolic pictography. But symbolic pictures may, in their turn, have been developed out of geometrical designs. »Von den Steinen is now of opinion that a whole group of so called geometrical ornaments have evolved from textile designs, but that they, in being transposed from plaited or woven work to other materials, and carried out in engraving or painting, then embarked upon an independent existence, finally carrying with them a whole series of the most varied pictorial ideas, according to the requirements of the artist's inspiration, and that these latter creations had no essential connexion with the original geometrical designs.» The passage within the quotation marks is a summary made by Seler of von den Steinen's opinion as regards certain ornaments. Seler (1), p. 48.

[2] Cf. also Karsten (4), p. 152 (1), pp. 14, 33 and 34 (2), bottom picture in plate following p. 22, and Nordenskiöld (13), pp. 89–91, and 105.

826 that the hair in certain magic rites could represent the person from whom it had been taken.[1] We find a similar belief existent among the Choroti who, because of it, carefully burn the hairs that they cut off or pluck out. They also believe that the souls of the dead, as well as evil spirits, are [764] capable of working harm on the living by means of the hair, and on this belief is based the custom of the Choroti women of cutting off this adornment on the death of their husbands.[2] Similarly, the practice universally prevalent among the Choroti of plucking out eyebrows, eyelashes and other hairs of the face, the hairs of the armpits and about the genital parts, is probably due to this belief.[3] When a Choroti Indian takes a [727] scalp, or fixes the scalp lock of a slain foe under his frontlet (see pp. 60, 61 and [412] 103), it is probable that he considers that he has not only succeeded in obtaining a material trophy, but that the possession of the scalp or scalp lock to some certain extent confers upon him power over the spirit of his fallen adversary.[4]

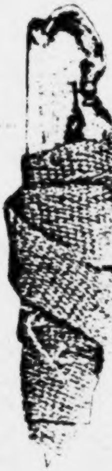

Fig. 185. Bone awl for blood-letting. Probably made out of an ulna of a puma. The awl is wrapped round with a red, woollen-fillet, to prevent it from penetrating too deeply into the muscles. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 82.

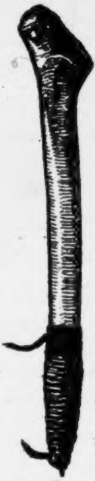

Fig. 186. Bone awl for blood-letting; also used for tattooing. Probably made from an ulna of a raptorial bird. The awl is wrapped round with grey and red woollen-yarn (the latter nethermost) so as not to enter too deeply into the flesh. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 83.

In the foregoing (pp. 63 and 75) I 304 have mentioned that the Choroti on certain 412 occasions perform a kind of magic blood-letting by means of bone awls. I have also given an account of the Indian conception of the effects of this kind of blood-letting (see pp. 63 and 64). I will now add that I think it probable that the *material* of which the awl consists also plays a certain part.

Nordenskiöld has observed that the Ashluslay, when they are out looking for nests of wild bees, prick themselves above the eyes with a wooden awl, so that blood flows.[1] In reply to my question, Nordenskiöld has been kind enough to tell me that he never saw the Indians using awls of any other material than wood for this purpose. On the other hand, both he and I, and other Chaco students, have seen Choroti pricking themselves with bone awls (figs. 185 and 186) when feeling tired. In order to ascertain whether the Indians in making their bone awls gave preference to any particular bone of any particular animal, I asked Professor Lönnberg to try and identify the animals from which the material had been taken for all the bone awls in my collection. Professor Lönnberg very kindly acceded to my request, and here below I give the result of his investigation.[2]

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[1] Even as early as in the Wærend law, mention is made of hair being used in witchcraft.

[2] See page 182.

[3] Karsten (4), p. 10.

[4] Cf. Karsten (4), p. 60.

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Awl No. 03. 3. 183. Upper part of right ulna of a large feline animal, probably a female puma.
» » 03. 3. 82. » » » left » » » feline animal, probably a young puma.
» » 03. 3. 182. » » » » » » » » » (somewhat smaller than the foregoing).
» » 03. 3. 84. Lower part of canon bone of small ruminant (deer calf?).
» » 03. 3. 184. » » » » » » » »
» » 03. 3. 185. » » » » » » » »
» » 03. 3. 83. Probably a fragment of ulna of a bird (raptorial?)
» » 03. 3. 186. » » » » » » » » of a species somewhat smaller than the foregoing.

The remainder of the bone awls that were submitted by me to Professor Lönnberg consisted of fragments, impossible of determination.

[825]

Unquestionably, it must strike one as peculiar that out of eight determinable pieces of bone, three of them probably consist of ulnæ of such a ferocious animal as the puma (the killing of which to the Indians is a matter of deadly peril). Another thing, which is in my opinion noteworthy, is that two of the awls probably consist of ulnæ of raptorial birds, and that the three remaining ones all consist of canon bones of some species of small ruminant. In fig. 81 I have reproduced an awl consisting of the jawbone of a Siluroid: this implement, however, at the same time being a kind of stamp for applying red paint to the face. Whilst paying a visit to the Gothenburg Museum, I was, by the courtesy of the Keeper of Ethnography, Baron Nordenskiöld, given the opportunity of going through the collection of bone awls that he has acquired from Indians of the Chaco, which collection now forms part of the Museum. On examining

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[1] Nordenskiöld (18), p. 49.

[2] In accordance with letters dated July 2 and 18, respectively. Ruckelstad collection of Manuscripts, Volume 1981, letter L.

412 this material it at once became apparent to me that seven of these awls were similar to those that Professor Lönnberg had identified as being from ulnæ of some large species of feline animal. I obtained permission to borrow these seven awls[1] with a view of ascertaining, if possible, through Professor Lönnberg, from what animals they were derived. After Professor Lönnberg had examined these objects too, I got from him the following report: »From all I can see, the implements herewith returned to you are also manufactured out of ulnæ of puma.»[2]

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412 In the men's satchels, or bags, that I have acquired from the Choroti, I have as a rule found *several* bone awls, together with, now and again, a wooden awl. This observation of mine is not to be explained away by my having happened to examine Indian carrying-bags which by mere chance contained a number of bone awls, because Nordenskiöld, who lived among Chaco Indians for a much longer period than I did, noticed exactly the same thing. He writes: — »In *every* Choroti or Ashluslay Indian's carrying-bag one finds *quite a number* of bone awls, with which he pricks himself when feeling fatigued.»[3] If it were only a question of puncturing the skin so as to make the blood flow, it would of course be sufficient to possess only one bone awl. As we know, blood-letting is resorted to by the Indians of the Chaco for the attainment of various ends. As has been said; when wishing to locate nests of wild bees, they always use a wooden awl. Can it possibly be that the material, of which this particular kind of awl has been made, is taken from some kind of tree especially favoured by the bees in their nest-building? When the Indians, in bow-shooting, draw the arrow towards the ear (see p. 63), and then find that the arm trembles, they jab a bone awl into the arm. It may be wondered if, on those occasions, they make use of the above-mentioned awls made from ulnæ of powerful feline animals, or raptorial birds? When feeling tired after a long march, for instance, the Indians give themselves a prick in the leg. Is it then that bone awls made out of canon bones of young deer are put into use?

It would be very interesting to learn from what animals the material of other bone awls from the Chaco peoples, kept at Swedish and foreign museums, have been taken. It is only by extensive examination in this

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[1] The awls are marked B. 392, B. 395, C. 248 (246?), D. 1214, D. 1220, D. 1221 and D. 1222.

[2] Letter dated Sept. 14. Rockelstad collection of Manuscripts, Volume 1921, Letter L.

[3] Nordenskiöld (12), p. 49. Italics by von Rosen.

way, *and by renewed research among the Indians*, that we shall be enabled 757
to obtain a thorough knowledge of their conception of magic blood-letting 412
by means of awls.

In the foregoing I have mentioned that Choroti bow-staves are sometimes 789
provided with a small skin casing, slipped on, and that on opening one 411
of these casings I found that it contained excrements from some herbivorous 825
animal. It is of course impossible to tell with certainty what the motive was for putting on this skin casing (see pp. 88 and 89), but I think it probable that it was put on the bow for some magic reason. It is noteworthy that it contained excrement. The fact of this being so is a circumstance that, in my opinion, especially points to the casing being of a magical character, for, according to the Chaco Indians' way of thinking, certain excrements possess magic properties and are often made use of in casting spells.[1]

All kinds of illnesses are by the Choroti considered to be caused by 753
evil spirits. As yet, however, we know but little of these Indians' conception of the character and curing of different illnesses. Once Nordenskiöld called in medical aid from a medicine man among the Choroti, and this is how he describes the way in which the medicine man set about it:

»On many occasions, in the villages, I have seen the medicine men 755
practising their profession. One day, among the Choroti, when I was feeling a bit seedy, I called one of those gentry to my camp. Giving out that I had a severe pain in the lower part of my chest, I asked him if he cared to cure me. He promised to come to me in the evening. At nightfall he arrived, accompanied by a colleague. They insisted on being left alone with me. Moberg and Andersson were consequently turned out, and sentries were posted so as to prevent anyone unauthorized gaining access to the hut. For a start, they made me strip to the skin, and then lie down. They stroked me with their hands over the chest, the sides of my body and the stomach, and then they spat on me. After that, they set to blowing on me, and then they laid themselves down and sucked hard at my chest, in particular at the spot where I had complained of the pain. After having sucked for a while, they turned away and pretended to vomit. Whatever they vomited up in this way, they did not show me, but, as they squeezed it between their fingers, it looked as if they had been squeezing worms. This performance lasted, I think, the

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[1] See, for example, Nordenskiöld (18), pp. 95 and 98.

755 better part of an hour, and when I was allowed to put on my clothes again, my body was full of large, red, marks from the sucking. The two worthies entertained me during the whole doctoring process with a lively conversation which I did not understand. From the pantomimic show I could, however, gather that it was a consultation. For a fee I gave one of the physicians a shirt and the other a pair of tight-fitting drawers.»[1]

As mentioned before, in case of illness the Choroti try to back up the work of the medicine man by dancing; such dancing is then regarded as magically counteracting the influence of the spirit of the illness.[2] The spirit of the illness is by the Choroti called »mohsek ihitek», i. e., the [753] arrow-shooting spirit, which, as I have pointed out in the foregoing, signifies that the Indians believe that the »mohsek» in question has the power of causing illness by arrow-shot. The belief that illnesses could be caused by »fairy-darts» is met with among a number of different peoples, and, as we know, was formerly common also in Sweden.

757 The Choroti also try to cure themselves of illnesses by internally taking medicines consisting of decoctions of herbs, etc. It is, nevertheless, possible that the Indians themselves regard these, which we consider natural, remedies as being magical.

751 361 When an epidemic disease causes many deaths in a Choroti village, it is the practice of the Indians to burn the huts and remove to another site. This they do, either from fear of the spirits of the dead,[3] or in order to dodge the attack of the spirit of the disease.[4]

764 765 On the death of her husband, a Choroti widow cuts off her hair and burns it, and paints her face black with soot. We may take it that these signs of mourning also are of magical import. As an instance of this, the Choroti say that widows cut off their hair so that it shall not be a means of their husbands' spirits molesting them.[5]

769 One evening when after a long day's shooting I arrived at the Choroti village situated near our camp at Tatarenda, I was met by the sound of monotonous singing, muffled drumming, and the noise of magic rattles.

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[1] Nordenskiöld (18), pp. 95 and 96.

[2] Karsten (1), p. 14.

[3] Karsten (2), p. 30.

[4] Cf. Karsten (3), pp. 32 and 33.

[5] »When I asked the Chorotis why a widow cuts and destroys her hair, I received the answer that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair; in order to rid herself of this danger she shaves it off.» Karsten (4), p. 62.

Of all this there was a cessation as soon as I had approached the village 769
near enough for the dogs to give warning, by barking, that a stranger was coming. In answer to my question why there had been singing, drumming and shaking rattles, I was told that there had been a dance for somebody who had died in the village. From what the Indians represented to me I gathered that the dancing, the singing, and the »music» had been performed in order to protect the soul of the dead person from being attacked by evil spirits, but it is possible that, instead of this, the dancers were aiming at protecting the villagers from being harmed by the spirit of the deceased, or from the evil spirit who had killed the newly dead person. The latter explanation is more in correspondence with other observations of the customs of the Choroti Indians.

In the literature one finds a statement that the Choroti bury their dead 764
in a lying-down position.[1] This mode of burying does occur among the 184
Choroti, but these Indians also inter their departed ones in a hunched up, squatting position.[2] As an instance, the Choroti who were living near Tatarenda declared that they usually buried their dead in the last-mentioned position. This mode of burial may possibly be connected with cultural influence from the neighbouring Chiriguano, but in such a case that influence must have been active also among the Choroti living right away on the Pilcomayo, for all the Choroti skeletons (three) that Nordenskiöld excavated in the neighbourhood of Fort Crevaux had been buried in a sitting posture. Of the three Choroti skeletons unearthed by him at Caiza in the Tatarenda district, one was found »in a doubled-up posture, with one hand on the top of the head and the other placed on the chest».[3]

During our journey Nordenskiöld only excavated these six Choroti skeletons. He has kindly permitted me to publish his notes on the circumstances under which the skeletons were found. The data above referred to I have taken from the catalogue supplied by Nordenskiöld to the Ethnographical Section of the Riksmuseum, in which his original notes upon modes of burial are embodied (see preceding foot-note).

Even in my earliest published account of the Choroti Indians I made 764

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[1] Karsten (3), p. 204.

[2] von Rosen (3), p. 12.

[3] This according to Nordenskiöld's original notes in the Riksmuseum inventory, 03. 5. Whether the skeletons excavated at Caiza were found in a sitting or lying-down position is not expressly stated in the notes. But as regards the Choroti skeletons excavated at Crevaux, Nordenskiöld especially points out that they had been buried in a »sitting posture».

764 a point of relating how they sometimes put down bowls with water and food in the graves with their dead.[1] From the table which here follows it will also be seen that in Choroti graves may be found not only food and water bowls (clay pots and calabashes) but also that the departed one may even be supplied with a tobacco pipe. According to my opinion, the presence of food and drink in graves points to the Choroti believing in an existence following upon the death of the body, and that the soul is in need of food and drink.

According to Karsten, the Choroti occasionally also place earthenware pots filled with water on the graves. About this he writes as follows: »The Choroti of the Chaco, who bury their dead in a lying position, customarily place at each end of the grave a clay pot half-filled with water. These water-filled clay pots are not meant as an offering to the spirit of the deceased, for that kind of offering is unknown to the Choroti. It is more probable that the pots are put on the grave on account of some other superstitious belief, and that to them is ascribed some supernatural power that is able to keep the demon of death at a distance.»[2]

It is possible that the purport of the *above described* custom is the one that Karsten considers it to be; on the other hand, to my thinking it is almost certain that the articles *placed in the grave* (it may be food and drink) are intended for the use of the dead.

If this is not the case, then it follows that e. g., the grave furniture shown in the synoptic table on page 185 must be regarded as amulets for warding off evil spirits from the dead. In the case of the snail shell (Borus oblongus), the theory that it was included in the grave equipment for that purpose is admittedly not improbable, but that the calabash bowl, the clay pot, leather bag and tobacco pipe were placed in the grave as amulets, is a thing I consider as being hardly probable. The circumstance of the Choroti interpreter telling me that the bowls of food and drink that the Choroti place in the grave with their dead are meant for provisioning the spirit on its journey, I do not, per se, accredit with any

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[1] von Rosen (3), p. 12.

[2] Translated: Karsten (2), p. 204. — »Die Choroti im Chaco, die Toten in liegender Stellung begraben, haben die Gewohnheit, an jedem Ende des Grabes einen halb mit Wasser gefüllten Tontopf zu stellen. Diese mit Wasser gefüllten Tontöpfe sind nicht als Opfergaben für den Toten gemeint, denn solche Opfergaben sind den Choroti vollständig unbekannt. Es ist wahrscheinlicher, dass sie aus irgend welchen anderen abergläubischen Gründen auf das Grab gestellt werden und dass eine übernatürliche Kraft ihnen zugeschrieben wird, von der man annimmt, dass sie den Todesdämon fernhält.»

Synopsis of circumstances relating to finds of Choroti skeletons.

Compiled by the Author from Erland Nordenskiöld's notes, Riksm. Inventory, 03. 5.

Catalogue No. Riksm. 03. 5.	Locality of find	Sex of the buried	Posture of skeleton	Character of grave	Grave furniture	Remarks
10	Crevaux Gran Chaco Bolivia	Woman	Sitting	A round pit	None	The skeletons numbered 10, 11 and 12 are of members of the same family. They had been buried together
11	»	Man	»	»	»	See above
12	»	Boy or girl	»	»	»	»
13	Caiza Gran Chaco Bolivia	Man	Crouching, one hand on the top of the head, the other on the chest. Not stated whether sitting or lying down	A rounded, oblong pit	A calabash	—
14	»	»	Doubled-up. Whether sitting or lying, is not stated	—	A clay pot, and a leather bag containing a tobacco pipe and some seeds which Nordenskiöld thought possibly tobacco seeds	—
15	»	Woman	»	A round pit	The shell of a land snail (Borus oblongus), see fig. 43	—

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764 decisive weight, for, as I have pointed out in the foregoing, one needs to use the utmost caution in accepting information which has been obtained through an interpreter. But as an eminently striking corroboration of the 764 171 interpreter's statement there is, I may point out however, the fact that the Mataco Indians, who belong to the same ethnical group as the Choroti, often put down pots of food and drink in graves, and that the Mataco believe that the dead actually partake of the offering. The fact of this being so was easy enough of verification among the Mataco Indians who, already at the time of our journey, had to a certain extent acquired the Spanish tongue. At Rio Seco Nordenskiöld excavated a Mataco grave, and in this he found a clay pot. About this he writes as follows: »When I asked them what the pot was for, they told that it had contained water which the occupant of the grave had drunk on his journey; a reply showing that they have a firm belief in a life beyond the grave.»[1] Bearing in mind how closely the customs and usages of the Mataco upon the whole correspond with those of the Choroti, I am of opinion that, from consistent statements of the Choroti interpreter and Mataco Indians, we have very strong reasons for supposing the food- and drink vessels, the tobacco pipes, etc., that have been found in Choroti graves, were intended for the use of the dead.

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[1] Nordenskiöld's notes, Riksmuseum inventory, 03. 5.

[pp. 187-268 not processed]

[pp. 187-268 not processed]

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